Playing with Value: Player Engagements with Videogames as a Negotiation of Net Cultural Worth.

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Abstract

This thesis explains the results of a research programme which set out to empirically create a theory relating to players' experience of videogame playing and the methodology employed in doing so. With the perspective that many empirically derived or tested contemporary theories are not sufficient for accounting for engagement in the majority of cases, a semi-inductive theory generation methodology was selected, interpreted, and employed.

The theoretical concept so derived is that in order to engage with a videogame product players must find an overall sense of cultural value in the products they encounter. This sense of value corresponds to games at a feature level, the user making judgements about salient design features, and is not fixed but is constantly evaluated as the player encounters the game, from when they are selecting the concept of a game, through play, to when they are reflecting on the experience in relation to other products. The evaluation of features seems to involve the player 'identifying' with the individual design features in that there is an implicit intra personal questioning of "Am I the kind of person who would play a game with this feature?" which might be described as an expression of the user's personal culture or assumed socially relative self sense. If they feel that they are the kind of person who would play a game with that feature then this value judgement will have a positive influence on their engagement, if they are not then it will affect the user's engagement negatively. The features so evaluated in this way can be any personally salient design feature at all, such as game mechanics, graphical representation or even packaging. These weighted judgements then act together in summation to determine the player's potential engagement.

Also included is a justification for the selection, interpretation, application, and pragmatics of the Classic Grounded Theory Methodology (CGT), as employed in this programme of research. Grounded Theory (GT) was selected as it initially promised to be suitably open and exploratory, and advice relating to CGT was employed most often as it frequently provided the most reasonable set of methods for proceeding. However substantial effort was required in both understanding what the published advice on applying the methodology meant, and how it applied to the current problem. Sections are included which tell the story of the practical process of both attempting to apply the methodology, and understand the implications of that application at the same time, and an attempt is made to summarise tricky areas (potential misunderstandings and seeming myths) and explain the understanding of the methodology relative to these issues as it was was employed in this research.

In conclusion the derived theory seems to demonstrate a reasonable degree of 'fit' and 'relevance'; a conclusion which is supported by a survey of academic and industry specialists. As such, the methodology employed might be said to be useful in generating novel theoretical results. Also, the theory can be expressed as a substantive instantiation of existing general theories of human cultural behaviour such as Cooley's 'Looking Glass Self' (1902). It is also felt that the theory could be readily modified to account for further insights into the domain. These conclusions suggest that the hypotheses generated are useful for investigating the domain of videogame play and engagement.

To the memory of Daniel Foster

"men grow old because they stop playing, and not conversely" G. Stanley Hall

It is a terrible shame that some men never find out quite how much play they are capable of.

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Other major influences on this thesis were the comments and requests made by my examiners Prof. Mark Blythe of Northumbria University and Dr. Mark Springett of Middlesex University. Without their input this thesis would be a lot thinner than it is now, in more ways than one. In that the supporting theory and the epistemological arguments

would be less well argued, and the overall size of the thesis would have been shorter, due to it covering less useful material prior to their input.

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Lastly I would like to thank my research participants. I hope that my obsession with what videogames are to you wasn't too irritating.

Thank you all.

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Section A: Introductions and methodology

1. Introduction

This thesis will perform two functions: It will report a novel theory about how players engage with videogames, and it will also explore the controversial (Glaser 1992) methodology employed in creating that theory.

The derived theory, that users are seeking worthwhile experiences through a process of cultural evaluation by identification, reveals apparent conceptual relationships with Pragmatist ideas such as those of Cooley (1902), Mead (1934) or Dewey (1934) but was not explicitly derived from any of them. Similarly, more modern assertions, such as Juul's (2010) 'stages of engagement' or Carr's (2005) 'assemblages of past experience', also have elements in common with this theory, but there was no explicit attempt to follow any such work. There are also other theories which have been proposed which attempt to answer similar questions and how this present theory contributes to these perspectives is explored. It is also apparent that some elements of other theoretical domains are implied in this work without being explicitly employed (such as semiotics; as one must ascribe a meaning to a thing in order to then assign a value). The thesis explores these theoretical relationships in order to position the theory.

Classic Grounded Theory Methodology (Glaser 1978; Glaser 1992) was selected due to its supposed domain independence and generative nature (rather than validative). These features were felt to be advantageous as in selecting a domain from which to approach the phenomenon and thence selecting candidate theories from that domain to validate with respect to videogame play would require assumptions about the domain with little empirical basis. The thesis explains why this methodology was selected and how it was interpreted and executed. There is also extensive discussion about the use of CGT by researchers from outside traditions where interpretations of the methodology are

commonly utilised. How easy it is to adopt and perform? Is it suitable for allowing reasonably inexperienced researchers to achieve an interesting result with limited resources? Is the advice available clear enough for researchers to grasp the fundamentals of the methodology quickly? The conclusions in this respect are that the methodology is powerful (if potentially isolating), but requires substantial effort in interpretation and a great deal of trial and error in attempting to gain skill in it's application.

The main conclusions of this research are that the theory is reasonable for the domain it studied (games players) and has some utility to associated domains (games designers and games researchers), an impression which was formed by a small survey of interested parties. Reasonable in that, based on an overview of the theory, the core principles do appear to capture the main concerns of actors (players) in the domain (playing games). As there is little literature which deals with player identity and values in quite this way, I have concluded that the work provides a contribution in setting out the general issues of videogame play and how players engage with videogames. Further work is suggested in possible validation studies, possibly by application of the theory in a design process. Perhaps in considering who the potential audiences are and what salient issues the identities within these audiences regularly consider, games can be more successful in supporting the entertainment needs of more players than are currently usually considered by modern design practices.

This thesis is split into 3 sections. The first section (**Section A**) sets out the objective of the research, introduces the phenomenon of videogame play, summarises empirical work that has been performed in producing a theory relating to general videogame play and engagement, and examines approaches from other disparate fields which propose theoretical positions with some relationships to the resultant theory. This introduction is

followed by a justification for the use of Classic Grounded Theory, its position in terms of epistemology, and then an explanation of the Methodology in detail.

The second section (**Section B**) sets out the theoretical concepts as developed. As explained in the section dealing with the methodology, this presentation directly represents the 'sorted' theoretical 'memos' produced by the methodology.

The third and final section (**Section C**) first tells the narrative of how the idealised CGT methodology was implemented, whether the concepts might be considered to be 'good' (using the success criteria of 'Fit', 'Relevance', 'Modifiability', and 'Workability'), and where this work might lead in terms of future work.

1.1. Objective

The motivation for this research was the desire to find out why any one player might engage with a game, how this might be accounted for in a general sense, and the small number of empirically derived general theories of videogame engagement at the time the programme was initiated.

Thus the objective of this research was to explore the phenomenon of videogame play in terms of the experiences that players have with them. That is the research set out to explore what factors or features that might promote engagement in players and how these factors are discovered and resolved by individual players. The ultimate objective of this endeavour was to empirically formulate a theory, or working hypothesis which might explain and predict the actions of players (and non-players). The resulting theory can be interpreted as a number of overlapping sub-hypotheses from which a global hypothesis is derived. That global or meta-hypothesis can be viewed as a lens through which the sub-hypotheses can be interpreted.

The following sections explain how this was achieved, how this effort relates to other similar efforts, what the final theoretical conception is and how it was derived, and how potentially useful and novel the resulting theory is.

Before the phenomenon of interest is explored in detail it would be wise to discuss the field from which this exploration was initiated.

The background of this research is from a perspective of User Experience (a phrase attributed to Donald Norman). That is the multidisciplinary field which attempts to empirically understand how a person experiences a product in use in order that products (specific or general) can be made such that they are safe and efficient to use while being agreeable to experience. Normally such research and practice investigates the utility, 'usability' and safety as a primary concern, however where the product(s) in question have little intended utility the focus must necessarily be on the 'experience' the user has. What are the qualities of that experience? What is the user (in the case of videogames it would be more accurate to refer to the player) getting out of the experience? What could we deem to be a positive or engaging experience?

In this respect this thesis is essentially an exploration of how videogames are perceived and received by those that encounter them, with the ultimate aim of developing a theory which accounts for not so much the 'usability' of videogames but the holistic 'user experience' of such products.

1.2. Phenomenon of videogame play

What is a videogame? Videogames, video games, computer games, digital games, interactive electronic entertainment or any other synonym are different terms for the general category of entertainment products using digital, computer technology (generally a form of input, processing and a display) to present an opportunity for play.

This thesis is not an attempt to define or delineate videogames, and whatever the history of this medium the least that can be said is that there is a fairly well recognised phenomenon of people playing games on various technological devices that they were not doing 40 years ago. Indeed sales of videogames are reported to have now surpassed film sales and box office receipts in the United Kingdom (Wallop 2009).

For the past decade there has also been increasing academic interest in studying these games and their players. The formation of the international Digital Games Research Association (DiGRA) in 2003 is an example of the coalescing of interest around this common phenomenon. Rather than reiterating the ongoing project of defining what the videogame phenomenon actually is, I will simply provide a brief justification for my ongoing usage of the term 'videogame' over some of the possible alternatives. While it may be possible to use 'computer game', 'video game', or 'digital game' I believe each of these apply constraints on the phenomenon: that they are played on computers (PCs, mainframes, mini computers, or some other conception of 'computer') or require computing technology to work; that they are a function of video technology; or that they can only be achieved with digital technology respectively. I believe that 'videogame' has become an abstract term for a commonly recognised phenomenon. While there might be some grammatical argument for 'video game' over 'videogame' I feel that this grammatical purity distracts from the general essence of 'videogame' as a useful catch-all term. It is true that in the course of performing this programme of research I might have had cause to qualify what I meant as the object of my research with subjects, encouraging them to think of any games they might play on their mobile phones, set top boxes, games consoles, PCs, the local amusement arcade or wherever, but generally the term 'videogame' was understood, and as a catch all term will be used for the remainder of this thesis to refer to all such games collectively.

This short qualification of terms highlights the breadth and penetration videogames have in our society. Indeed almost anywhere were we can find a display, some controls, some means of interpreting the inputs from those controls and presenting a new state, we could find videogames. We can purchase games on disc for our home office computers from our local supermarket, we can download games via a web browser and play them alongside our casual web surfing, we can browse extensive collections of dedicated hardware and software in specialist shops on almost every high street, and even the most rudimentary modern mobile telephone will likely come with some kind of videogame pre-installed. We can read reviews and analysis of the latest titles and equipment in specialist magazines, lifestyle magazines, on websites, and even in the traditional printed newspaper press. They are apparently everywhere, and people are playing them.

People play games in all the contexts they exist, on the train, at the bus stop, at home via the television, at work when the boss isn't looking, in dedicated amusement arcades (though less so these days), and even in large tournaments . However not everyone in modern society plays videogames, and even those that do play do not play every game at every opportunity in every context. So what is it that has one person play a game and another not? What are the principles or factors that determine if a potential player will engage with a game? It is the intention of this research to explore this question.

To clarify what I mean by the terms engage and 'engagement' I will refer to the Oxford English Dictionary:

"Definition of **engage**

verb

1 *[with object]* occupy or attract (someone's interest or attention):*he ploughed on, trying to outline his plans and engage Sutton's attentionI told him I was* ***otherwise engaged***

(**engage someone in**) involve someone in (a conversation or discussion):*they attempted to engage Anthony in conversation*

2 *[no object]* (**engage in** or **be engaged in**) participate or become involved in:*organizations engage in a variety of activitiessome are actively engaged in crime*

(**engage with**) establish a meaningful contact or connection with:*the teams needed to engage with local communities"*

(Oxford English Dictionary 2012)

So an individual could be said to be engaged with a videogame if they are playing it or (and this is an important distinction) if it is otherwise occupying their attention.

1.3. Overview of research into videogame play

At the time of initiating this programme of research there was relatively little published academic work which attempted to address the question of what engages the players of videogames, and even less which attempted to do so via formal empirical methods or at least with some degree of evidence.

Much of the work from the 20th Century examined the supposed or purported effects of videogames on those that played them, such as the effects of violence (see such as Dill & Dill (1998) for one overview) or whether it was reasonable to talk of videogame addiction (a reasonably early example of research in this area would be the work of Sue Fisher (1994)). As research in these areas is ongoing (eg. Van Rooij et al. 2010), I will not cover these areas, as it is apparent from many of these pieces of research that they assume that videogames are engaging rather than seek to find out why this is so, and whether games make people violent or lock people into a cycle of addiction is not the focus of this research, thus these questions will only be examined as part of the whole question of the experiences of videogame players.

Academic interest into what videogames are or represent, beyond the purported adverse effects on the mental or physical health of (mainly) children, began to grow toward the

end of the 20th century (e.g. Herz 1997) and into this century, with pioneering academics such as Espen Aarseth starting to work in the area around 1997 (Aarseth 1997). Another trend this century is for research into games which hopes to take features of games and employ them in a context other than pure entertainment. This serious games movement (for example The Serious Games Initiative http://www.seriousgames.org/) has tried to study games as a means of achieving specific ends. While 'serious games', such as educational games or experimental simulations, have found a place in academia where games are studied in contexts where considerations of the merits of purely entertaining games are substituted with extrinsic motivations (such as education), occasionally projects in these domains can produce insights of interest to the question we are attempting to address here (e.g. Malone 1981) as in order to understand how to use the motivating aspects of a videogame one would need a clear understanding as to what those motivations were and how they operate in engendering engagement in players.

In terms of the total amount of literature produced on the topic of why people play games, only a certain proportion have well reported methodologies. And the section below this will explore a selection of these. The vast majority of empirical or critical research has analysed small aspects of the play experience (e.g. Newman 2002), and while these efforts have resulted in an increased understanding of what happens when people play games they often fail to address the formal problem of *why* people play games rather than engage in some other activity or what engages existing players in a broad sense. For example Aarseth (Aarseth 2004) has argued that as players engage with a game the narrative and presentation offered by the game diminish in the player's conscious awareness as the player engages with the rules of the game and strives to overcome the challenges presented, while Newman has argued (Newman 2002) that to analyse play as only cybernetic control loops does not account for when players are

passively interpreting aspects of the game (dubbed by Newman as on-line and off-line play respectively). These are interesting points, but they give us no idea as to why the player is engaged, just in what ways they may be engaged in certain situations. Other researchers segment the problem (sometimes apparently arbitrarily) into types of games; by genre or more likely 'style' (action or 3D world say, such as Fabricatore et. al. (2002). This seems to me to be short-sighted, in that these studies often do not pretend that the 'kinds' of games are orthogonal to other kinds of games and as such the selection of one kind of game over another is making an assumption about what games are interesting or important without clear theoretical or empirical justification. If games can be segmented on some design dimension do players automatically engage with the dimensions in different ways? If they do indeed engage in different ways what are the dimensions of this engagement difference? If they do not engage in different ways, how are the ways in which they engage similar? Could these similarities, if they exist, tell us anything interesting? It seems to me that if we look at any arbitrary labels for games, such as action, strategy, or adventure, we can easily ask what action is experienced in a strategy game or what adventure is to be had in an action game? So even if the design features are orthogonal, the experiences of players do not have to be, and do not have to map to these features as clearly distinct genres.

That is not to say a typology of game designs and features (such as Patterns of Game Design (Bjork 2005)) is not interesting, just that such a typology does not necessarily map onto player engagements, and we should be cautious as to how we take apparent features of a game and map them to engagements. For example studies of presence, challenge, characterisation and other features, and if adjustments to these features affect some measurement of engagement, seem to presume that these factors are critical to engagement without necessarily having any theory as to the relative importance of the wealth of possible engagement factors, and thus why presence,

challenge or characterisation might be more important than other factors. Indeed there is some evidence that such elements of a games design might not have significant influence overall (i.e. Gackenbach 2007). The work presented in this thesis will not consider game features as abstract concepts other than where they are expressed by players as having influence on their play activities and engagements. As such a mapping of typologies of game features to engagements is not performed in this research.

Another example of arbitrary delimitation of the domain of 'videogames' is to assume that all games include some conception of a 'world', especially where that world is a three dimensional, virtual environment (which might be projected to two dimensions for display on a computer monitor or similar 2D display), and as such videogames are a subset of what has been come to be referred to as 'virtual worlds'. While investigations of, say, how presence can contribute to engagement with a game that is presented as a virtual world are interesting, and valuable to the study of virtual worlds, such a study may not account for other possible engagements, as not all games are virtual worlds, and as such a study so delimited contributes only a little to the broad question of why people play videogames in general.

So in order to determine what factors might be important and when to invoke them we need to perform research which considers games in the broadest sense, and thence factors which might engage players. There are a number of ways we might go about doing this. We could critically evaluate a selection of games, applying subjective impressions and a selection of theories from other domains to see if we can extract from games their qualities and appeals. This approach might help to integrate the study of videogames into the studies of other things (such as films, sports or technologies), but the risk is that we might miss some unique qualities of videogames; qualities which make videogames a distinct phenomenon and not a variant of some other phenomenon.

Are videogames films plus the opportunity for control? Are videogames physical skill challenges akin to Football? Being technological devices can we discuss games in the same way we might discuss a toaster or webpage? This process of applying 'grand', external theories has been rejected by students of games (Aarseth 2001), convinced that videogames as a medium offer unique qualities.

So in order to understand what is going on when players play games some researchers advocate actively engaging with games as a player in order to more clearly understand what it is to be a player and thus what the experience of playing a game might be (Aarseth 2003). By such a process of introspection (or where the cultures of game players is considered to be critical, Participant Observation) researchers hope to get an understanding of the factors present in both videogames and videogame play, but this approach suffers from a potential problem of subjectivity. A report about a single player's theoretically guided subjective experience of a game, even with some considerations of the attitudes of other players encountered can often be light in transferrable theory and heavy in narrative.

In moving from critical or subjective accounts of engagements with videogames to broad substantive theories we must look at the experiences of many players across various different types of games in multiple contexts. Each of the pieces of literature reviewed in the following section attempt some degree of empirical investigation, varying in the breadth of their audience or choice of game type, and how much they are guided by theory from outside the study of videogames.

1.4. Grounded or Empirical literature

1.4.1. Malone

Perhaps the earliest specific example of a theory of videogame engagement was that of Thomas Malone (1980). In Malone's various writings he reports having tackled the

problem in various ways. He seems to have initially conducted a series of interviews (Malone 1981) with young school children (US 5th grade, where pupils are normally 10 to 11 years old), from which he developed three principal factors of fun: *challenge, curiosity,* and *fantasy*. He then devised a series of experiments to explore the relative impact of these dimensions on the engagements of more young players (Malone 1980). While there are omissions in the published methodology of his work (for example, by which methodology did he structure his interviews and interpret the results?), Malone's work is nonetheless very interesting, not least because of the dates he published. Malone's theory then is that engaging games contain the aspects of *challenge, curiosity,* and *fantasy* in different degrees; being variously difficult, presenting incomplete information or amusing sensory stimuli, and having presentations and metaphors which appeal to the player.

Malone's dimensions seem to make a certain amount of sense, in that when informally evaluating one's own engagements or the engagements of others there is little which cannot be included within these dimensions. It seems to be a good approximation of what is going on. Only when we start to probe his verifying experiments do we get more questions. One of his major findings from one of his experiments (where he devised 8 versions of a simple game to be used as experimental conditions for eighty 5th grade school pupils) was that fantasy (or the representation demonstrated by the game) was a key factor in engagement. Malone secondarily observed that boys played for longer than girls when the representation was in place (popping balloons with darts). It seems odd that at this early stage Malone chose to use sex as the main demographic dimension, as the selection of such seems wholly arbitrary, even if it does show an effect: that 'fantasy' showed a significant overall effect and that that effect also varies by the gender of the children studied. It is interesting to note that perhaps one of the major reasons people

play games is that they can engage with the fantasy of the presentation relative to the mechanic of the game.

We could ask then, if we would we use Malone's 3 motivating factors to explain the motivation of players outside his sample? Could we transfer these findings to other cases, such as adults or older children? Surely if we were to attempt to do so we must do so cautiously, without first testing for the presence of these factors on other kinds of player. Also do we assume that because Malone accounted for this dimension in his sample, that gender is a critical demographic factor in determining a player's engagement and motivation to play games with and without strong representational themes? Are there other individual differences, which Malone did not account for, which might also correlate with engagement, such as age, class, nationality, play experience, receptivity to different forms of representation, intelligence, race, parental occupation, and so on? That there are correlations between engagement, representation, and gender begs the question: what is the cause of this correlation?

1.4.2. Greenfield

Some of these questions could be asked of the work of Patricia Greenfield (1984). In 1984 Greenfield published an ethnographic account of games and the appeals of games as expressed by players (primarily children or adolescents) Greenfield encountered in the amusement arcades of the time. In her account she puts forward several 'appeals', starting with the visual expressiveness of the medium (similar to television in her reasoning) and including 'active control'. She also examines Malone's theorised motivations in relation to her own observations and interviews. Greenfield's interpretation of this data proposes, with loose reference to Malone, that games are primarily visual, like television, while allowing a degree of active control not found in

television. Much of her discussion relates to the skills and culture expressed by these arcade videogame players, but doesn't explicitly relate these to the appeals she raises.

Could we 'collapse' Malone's motivations into 'visual appeal' and 'active control'? Surely the appeals suggested by Greenfield would result in a hypothesis which states that the more visually appealing a game (which is surely not an objective quality) and the more control a player is offered will correlate with engagement. I doubt that increasing the amount of control will always result in greater engagement. Surely there is a point where too much is demanded of the player, and the game ceases to be 'playable', 'enjoyable' or 'engaging'; though maybe this doubt could be mitigated by Rozendaal et al. (2009), who show that there may be a correlation between control and engagement. Ultimately Greenfield's work presents an Ethnographic account of the arcades of the early 1980s. It is not clear whether we can assume that these insights relate to subsequent developments of the medium, though perhaps the success of the modern industry is due in part to the increasing visual sophistication of videogames as well as to advancements in control mechanisms.

Empirical research into what the phenomenon of games playing is seems to enter a hiatus for around fifteen years, but around the year 2000 a number of researchers were exploring a number of closely related questions.

1.4.3. Fabricatore

The Ph.D. research of Carlo Fabricatore (Fabricatore et al. 2002) attempted to tackle the question of what makes a good game. At least this seems to have been the initial intent: "What according to players' preferences determines the quality of a videogame? What do players want in videogames?" Fabricatore et al. report having used an interpretation of Grounded Theory methodology (GT) to develop a model of 'gameplay'. This approach is interesting as it is a variant of this methodology that will be reported in this present

thesis. The version of GT implemented by Fabricatore starts by narrowing the problem space by defining a delimiting research question to focus on 'gameplay', defined as the instantiation of usability as it applies to games, and investigating it in 'action' games due to that description (action game) fitting a number of popular games at the time the research was started. Fabricatore specifically rejects factors related to 'ambience' or the emotional draw of a game, due to the difficulty in developing guidelines based on such. Other types of games are rejected due to the greater 'historical significance' of action games. The research then observed and recorded selected expert players playing a preselected sample of action videogames and followed these play sessions with structured interviews. The procedure then followed the general pattern of GT by iteratively fracturing the data in order to develop comparative concepts. The resultant theory is a hierarchical model of a number of different features which may influence the perceived quality of the 'gameplay' of an action videogame. This result should be of interest to the designers of action videogames in order to ensure that they have a sound, usable/playable product. In rejecting ‘ambience information’ in this grounded study of playability has Fabricatore missed critical information about players’ preferences? It could be argued that in sidelining “mere” perceptual elements of a game, which contribute to “creating a specific atmosphere capable of drawing and maintaining players’ attention” we will not necessarily answer the question of “what do players want in videogames”.

As Fabricatore so delimits his scope to the playability factors of action videogames, is it right to ask if such a model could be transferred to other genres and if so are “ambience factors” always difficult to account for? If we compare this approach, and the consequent findings, with others (such as those mentioned in this chapter) we can see that factors such as fantasy (Malone); perceptive fun (Choi et al); social interaction, and fantasy and arousal (Sherry et al), which one might include in Fabricatore’s ‘ambience factors’, are so

regularly included that to decide to ignore them, with no rational justification, might lead to a theory which misses much of what shapes those preferences? Is this a feature of action games or an ungrounded omission by this piece of research?

Putting such criticisms of scope aside, Fabricatore's model of the functional aspects of action game playability is rich and seemingly comprehensive, and may well be useful for understanding the requirements for developing 'playable' action games.

1.4.4. Choi, Kim and Choi

Choi, Kim and Kim (Choi et al. 1999) asked if designers and consumers have the same ideas about what makes computer games fun. To this end they report having brainstormed, reviewed writings, and interviewed players and developers to help them generate a hierarchy of factors relating to fun games via the Analytic Hierarchy Process, which they then report having verified with further subjects. This structure of factors was then used to design a questionnaire to determine subjects' opinions as to whether these factors affect the potential of any game to engage players. The questionnaire was then administered by survey to people who play games and people who design games, to statistically determine if the two groups demonstrate any agreement.

Interestingly it turns out that there was little agreement between developers and players as to what makes a game 'fun', even though the subjects were selected because of their involvement with games of the same two genres (strategy games and role playing games). That there is disagreement between players and designers with respect to their opinions relating to what makes a fun game is interesting; it suggests that we shouldn't place too much emphasis on industrial concerns when studying game reception, that in talking to players we get a more accurate representation of their concerns than talking to developers.

In terms of the model developed, the factors presented seem incomplete and restrictive when we consider other, similar theories. For example the second level of the hierarchy (after 'fun game') contains the sub factors 'cognitive fun' (a sense of intellectual pleasure) and 'perceptive fun' (a sense of sensory pleasure), and just two nodes at this level of the hierarchy seems insubstantial. Formal theories of pleasure such as that of Tiger (1992) may include social pleasures or break intellectual pleasures into more granular factors (Tiger's four kinds of pleasure are ideo-pleasure, psycho-pleasure, socio-pleasure, and physio-pleasure). This restriction in the number of factors appears to be an artefact of the type of Analytic Hierarchy Process employed, where every level of the hierarchy must consist of two contrasting nodes. We must then question whether the Analytic Heirarchy Process is necessarily a good fit. While such a hierarchical deconstruction can be a useful approach in tackling a rational decision making process, decomposing the features of the decision by increasing degrees of granularity, the question of what makes videogames fun or engaging might not be a rational decision making problem which the Analytic Hierarchy Process was created to describe (see the extended discussion of Rational Decision Making in the general literature section below).

As previously noted, the observation that players' and developers' opinions of games, which might be described by certain genre descriptions (strategy and role-playing games), do not correlate is indeed interesting. Thus it is possible that developers do not naturally understand what makes games good or engaging to players. Other than this clear observation we also have a hierarchical model of fun when reasoning about playing strategy and role-playing games. The top level of this hierarchy seems quite narrow when compared with factors developed by others working in a similar space; could these differences be due to the special needs of the players (and designers) of strategy and role-playing games? Could we transfer these findings to the players of other kinds of

videogames? Possibly, but maybe the way that the model restricts itself to contrasting pairs of factors at each level of the hierarchy forces such a difference when compared to models developed without such restriction. As such this hierarchy might need to be reinterpreted before it can be transferred to cases outside of those studied.

1.4.5. Sherry et al

Sherry, Lucas, Rechtsteiner, Brooks and Wilson (2001) approach the problem from a perspective of applied media research by formulating three major research questions:

- What are the most popular genres of video games among the sample?
- What are the main reasons people use video games?
- Do use, genre preference, and reasons for using video games differ between men and women?

From these questions they formulate two hypotheses stated as:

- Uses and gratifications will be correlated with amount of time playing video games.
- Uses and gratification will be correlated with genre preference.

As such they are attempting to place their research within the broader tradition of the Uses and Gratifications Theory approach to media research which is a perspective which seeks to understand what the audience do with media as opposed to what effects the media might have on an audience.

To this end they report having performed an extensive series of quantitative studies. The first interesting aspect of these studies is the set of dimensions or variables used. Other than just gender the hypotheses include genre and 'uses and gratifications'.

With respect to genre, Sherry et al. describe how they analytically derived fourteen mutually exclusive genres by reviewing magazine and World Wide Web reviews. These genres were then validated by pretesting with a reasonably large sample of subjects (one hundred and twenty). These genres were then subjected to a type of Factor Analysis, factoring by subjects' stated preferences, yielding three main factors ("clusters") within the genres. These three clusters were dubbed Imagination games, Traditional games, and Physical Enactment games.

In the case of uses and gratifications, a previous study by Sherry and Lucas (unpublished) had formulated six principal motivations to play, by means of a series of focus groups with a total of almost a hundred respondents. These six "dimensions of videogame use" (Sherry and Lucas) are: Competition; Challenge; Social Interaction; Diversion; Fantasy; and Arousal.

Surveys, that could be said to represent these uses and gratifications, were then created, validated and administered (over 500 subjects) in order to answer the research questions by means of testing the hypotheses. Statistical analysis of the results of this survey reveals that there are indeed correlations between gratifications and playing time, and gratifications and genre preference. Implying that those seeking certain gratifications are likely to play more than those seeking other gratifications, and these gratifications are manifested differently within the genres. Also these correlations are not identical for both genders.

These results are of interest to us mainly because the uses and gratifications formulated are similar to high order factors of engagement like those put forward by Malone (1981) or Kline and Arlidge (2003). Also if we hold that the reported time spent playing is an indicator of the degree of engagement experienced by the subjects, the specific correlations uncovered in answering the first hypothesis tell us which gratifications yield

the most engagement. These turn out to be Diversion followed by Social Interaction. The fact that different results are gained for the different genders is also interesting, as it highlights that diverse players have diverse preferences (different needs perhaps), and that some of these variations may be grouped around gross demographic variables (in this case gender, but we might also ask if other gross variables, which were not captured, such as class or race might also show a difference in preference).

While the results of this study are interesting, it is obvious that it was not intended to answer the same question as our own. The second major research question of Sherry et al. (What are the main reasons people use video games?), while being similar to asking what is videogame engagement, does not differentiate between games sufficiently well to have provided us with any answers; it is as if they had asked "What are the main reasons people read newspapers" without asking why more people read one paper more than others. One major difference between this research and the research reported in this thesis is that the main means of differentiation between games used by Sherry et al. is that of genre. This differentiation seems to be a fairly artificial structure. It could be argued that as genres are not mutually exclusive, they therefore give us a weak means of differentiation between games. For example, considering the similarities or dissimilarities of two well known games we could argue that The Legend of Zelda: The Wind Waker (Nintendo EAD 2003) and Super Mario Sunshine (Nintendo EAD 2002), both for the Nintendo GameCube, might well be put into different genres, but have many similar gameplay and stylistic features, and apparently a similar target audience. As another example it is difficult to understand what Sherry et al. intend by the genres named 'Arcade' and 'Kids', especially as the genres indicated are intended to be mutually exclusive. So what the classification by genre captured, in terms of the commonalities

and differences between games, is not made clear, in spite of the attempt to validate these conceptions statistically.

So Sherry et al seem to have a solid answer to the question of videogame engagement: in that players primarily seek diversion and social interaction, and sometimes seek competition, challenge, fantasy and arousal. However how these factors are manifested in any individual's engagement with a particular game is hard to predict. Here genre is a blunt instrument which doesn't seem to capture the rich variability of games. Also broad demographic indicators such as gender may not reflect the behavioural differentiators critical to understanding the individual differences of engagement.

It is interesting to note that the factors put forward in by Sherry el al have commonalities with those proposed by Malone, Greenfield, and Ermi and Mäyrä (as covered in this chapter), so maybe a consensus about the factors of videogame engagement is being realised.

1.4.6. Ermi and Mäyrä

Another attempt to empirically derive a set of factors is that of Ermi and Mäyrä (2003). They report having performed a broad overview survey on almost 300 children aged 10-12 and their parents, followed by a series of 15 follow up interviews with 16 of those children and their parents. They framed their research question to account for issues of 'power' and 'control' which we might rephrase as 'engagement potentials' and 'parental management strategies' respectively. From their interviews they extract a list of powers, or features of a play experience with the ability to engage. This list: novelty and spectacle; excitement of combat; game characters; persistence; exploration; advancement; unravelling of puzzles; building, creating and controlling; humour; relation to one's hobby or interest; audiovisual quality; imaginary world; and winning; seems quite comprehensive. In terms of the controls placed on children's play there seems to

be little to help us understand what makes a player engage in a game and so is of little interest to the concerns of this current thesis, and so will not be explored here. In their concluding statements Ermi and Mäyrä admit that a comprehensive analysis of the 'powers' of games was not performed beyond the extraction of the themes listed above, but proposed that some of the powers could be summarised as players' "empowerment or imaginative liberation". So their thesis relating to the engagements of videogame play resolves to a list of possible 'powers' or engagement features, with a broad interpretation of how these features might interrelate, but with an admission that this suggested relationship is an initial impression put forward without rigorous analysis.

The nature of their sample is interesting, as while they restricted their age of their subjects to 10-12 years old (reducing the potential for creating a fairly general theory of videogame engagement perhaps) they did not restrict the scope of the study by the gaming experience of the subjects or the games that they might have had experience in playing. Their broad hunch then might suggest that children of this age are drawn to empowering and imaginative games in general, but we would be unwise to assume that this draw is true for individuals outside this age group, but the fact that their 'powers' are comparable with other proposed factors might suggest that it could be possible to transfer these findings to cases outside the sample they employed.

1.4.7. Brown and Cairns

The issue of using understandable terms is an important one. Where Ermi and Mäyrä talk of power and control in a way that might not be immediately clear, Brown and Cairns (2004) try to clarify what the ultimate gaming experience might be called via an empirical methodology. Brown and Cairns focus their attention on 'immersion' and attempt, via an implementation of the Grounded Theory methodology to find how game players use this term and what being immersed in a videogame experience might be said

to be. Their description of immersion includes several levels, starting with 'engagement' and ending in 'immersion' which might also be understood as a high level of engagement or 'flow'

It is unclear whether Brown and Cairns derived the importance of ‘immersion’ from data in a grounded manner, or if they deduced that immersion must be critical before entering the field. Both possibilities raise questions, especially in light of the methodology employed. As my own research yielded a single, unprompted, reference to immersion by a single subject I feel obliged to question where immersion, as a central theme of their theory, came from, or whether ‘immersion’ is the best term to describe a deeply engaging experience.

They have however highlighted a couple of interesting features of engagement. The first is that any experience is not a fixed and isolated instance of interaction; players must learn what the game has to offer and how to play it effectively in order to potentially become increasingly engaged. The second point is that, at least in the early stages of engaging with a game, Brown and Cairns feel that there is an investment that the player must make early in the process of becoming engaged. This investment is a kind of pass/fail gateway which the player must overcome in order to progress to further levels of engagement including, ultimately, immersion. However how this investment is made, what is invested and what the return is expected to be is not explored.

However, weather we call a strong engagement ‘immersion’ or something else, Brown and Cairns seem to have developed a theory with relations to formal theories relating to investments, such as Bourdieu’s Cultural Capital (1984), and deep, value laden engagement such as Csikszentmihalyi's Flow (1990). So this work is interesting as it does not list a set of isolated factors, but rather presents a staged process leading from a state of no engagement to being deeply engaged. As such this result has features in

common with the work presented in this thesis, in that part of the theory presented in chapters to follow includes a contextual process which accounts for the degree of engagement a potential player might find in any particular game. Also Brown and Cairns do not pre-segment the problem in terms of player demographics or game types and as such their work represents a rare example of an attempt to develop a theory with broad applicability, grounded in empirical data.

1.4.8. Ravaja et al

As the above researchers were considering terms by which to explain the phenomenon of videogame play, various other researchers were reframing the problem to examine theoretically derived game engagement factors. One such reframing is that of Ravaja et al (2004) who set out to show the relationship between mood, valence and sense of presence with specific personality traits, within a conceptual framework of emotion. They state as a central tenet of their approach, "...people seek, and are eager to pay for, games that elicit optimal emotional responses (or response patterns)". This statement seems to form a loose hypothesis, but a more clearly stated hypothesis is "Whether the responses to games differ as a function of the player's personality". In order to test this hypothesis they experimentally took measures of valence, mood and sense of presence and compared them with measures of the personality traits of impulsive sensation seeking and self-forgetfulness.

Ultimately their conclusion is that different videogames elicit "different emotional patterns and degrees of presence". Specifically their results confirm that their experimental sample, of 37 rewarded college students, demonstrated correlations between emotional response, sense of presence, and personality. They point out that that an emotional profile for a game is not necessarily a totally reliable indicator of its popularity, citing the popularity of Tetris (Soviet Academy of Sciences 1984) (a version of

which was included in their experimental conditions) and the apparently 'poor' emotional response of their subjects toward that title. One aspect of this research which seems to triangulate with the findings of others is that first-person perspective and challenging games both elicit a greater sense of presence. It seems that there are interesting results in what this research failed to show as there are in what it did show. Asking subjects to self rate their emotions and sense of presence does not seem to guarantee an overall valence that could be said to fall foul of disconfirming cases, as shown by their admission of the emotionally 'poor' Tetris. So we might suggest that while emotion, the patterns of these emotions, and possibly presence may sometimes partly account for the reasons why a player, holding a particular set of personality traits, may engage in playing a particular game, how this occurs and what the relationships between all these factors might be is not clearly explored. One reason for this possible lack of coherence is that Ravaja et al seem to take a view on what variables to include in their experiments by selecting multiple popular theories as worthy of investigation. It is not uncommon for psychologists to discuss emotion and valence, and it is not uncommon for videogames researchers to discuss presence as a way of framing engagement, but to assume some relationship between these two fields, without accounting for the wealth of other possible constructs (see elsewhere in this section) seems fairly arbitrary. For a methodology which places such emphasis on quantitative evaluation of experimental data the experimental hypotheses are not clearly expressed and as such the conclusions are unclear. How was the hypothesis that self-forgetfulness and impulsivity are the most critical traits in videogame response, and was this validated or refuted? Likewise was there a hypothesis that valence, mood and sense of presence capture a player's response to games better than other possible measures and was this metric tested? Otherwise that there will be a correlation between games and the emotional responses of players, seems to be a quite obvious truism, almost a tautology: different experiences

are experienced differently. However that challenge and sense of presence appear to correlate in this sample raises interesting implications for studying the conditions of presence and the effects of challenge on an experience.

1.4.9. Sweetser and Johnson

Continuing this, more or less chronological, review of the literature which empirically deals directly with the question of what videogame play is and how it engages players leads us to Sweetser and Johnson (2004). Their two stage study, specifically addressing 'game environments', is interesting for two reasons. The first reason is that in qualitatively exploring player issues with game environments, they find much information about what players enjoy in general. The second is the mix of methods employed.

The methodology employed was to run a four participant focus group to extract 'issues' and then run a relatively large scale survey asking users to rate the effect of certain variables on their enjoyment of games. Ignoring that they claim to have used a version of the Grounded Theory methodology on their initial single focus group (a methodology which is by definition iterative), their list of 'issues': consistency; immersion and suspension of disbelief; freedom of player expression; intuitiveness; and physics seems to show some degree of consistency with other studies reviewed here. This list of issues, possibly in virtue of being developed using just four experienced players, may however fall foul of several counter examples. For example 'a strong theme' coming from this research was one of consistency (that 'in game' objects should behave in the ways players might expect them to based on their experiences, particularly in the real world) which seemingly fails to demonstrate 'fit' (a key Grounded Theory quality evaluation metric) if one considers 'casual' games which often use an approximation of physical properties versus simulations which go to great lengths to replicate the behaviours of

real world objects as accurately as possible; as it seems apparent that these two approaches to 'consistency' will appeal to different players in different games. Likewise if one considers games with environments which are abstract in nature (if we use the 'Tetris argument' yet again) we can see that the list of issues produced seems to have little to say about the engagements or frustrations of players in general.

The survey element of the research statistically verified the issues they had developed (and presumably surveyed for). Other observations from the survey relating to experiences and preferred game types are at such a level and are presented in such a way that they tell us little about why player *x* might engage with game *k,* especially if that game does not consist of a virtual environment with aspects which simulate the real world in any way. So in terms of the study as a whole we still do not have an answer to the question of what engages the players of videogames in general. Can we transfer the 'issues' raised by a handful of experienced players to the experiences of non-experienced players? Does a survey based on such a small pilot study give us sufficient coverage in terms of factors to come to any general conclusions? The issues put forward (consistency; immersion and suspension of disbelief; freedom of player expression; intuitiveness; and physics) are interesting as they do not seem comparable to other issues or factors put forward by others. Other than immersion (Brown and Cairns) the issues seem to be similar to a list of possible ‘usability’ issues with general software. This difference might be due to the initial study focussing on ‘issues’ or problems with certain gaming experiences. As such most of these factors present a list of possible reasons a player might become frustrated or disengaged with a game (inconsistency; limited freedom; unintuitiveness; and inaccurate physics model), with immersion and suspension of disbelief seemingly sitting apart as a possible reason (or couple of reasons) to play, rather than opposites of reasons not to play. As such to state that a

player will try and suspend their disbelief in order to become immersed in a game world, and will be less likely to do so if the game acts inconsistently to player behaviour; forces the player to play in a specific way and limits their freedom to try different things out; behaves in unexpected or unintuitive ways; or uses a strange model in its presentation of physics, seems not unreasonable.

1.4.10. Carr

A broadly qualitative approach was taken by Carr (2005) when she performed a series of interviews, questionnaires, and longitudinal observations (via a specifically convened school gaming club) in order to investigate the tastes of girls in a South London school. While her research set out to investigate gender as a factor, the ultimate conclusion of Carr's study is that "Different people will accumulate particular gaming skills, knowledge and frames of reference, according to the patterns of access and peer culture they encounter – and these accumulations will pool as predispositions, and manifest as preferences." while "Preferences are an assemblage, made up of past access and positive experiences, and subject to situation and context.". This observation suggests that, at least for these girls, engagement with a particular game depends on if they are either familiar with it (by virtue of themes or prior experience with that game) or are directed to it by their social context.

Could we transfer these findings to cases other than 13 year old girls in a school club run in a British school? Tentatively it seems possible that the formal nature of the hypothesis and the relationship between these findings and my own findings (using a much broader range of subjects) suggests that these observations may well be more broadly applicable.

Another interesting point to consider in this study is that, while it focussed on young female players, hypothesised gender preferences (for specifically female avatars or

‘female friendly’ themes) did not show as great an effect as one might expect. Maybe this weak support of this hypothesised effect was due in part to the ‘safe’, all female environment of the club, or maybe other personal factors contribute to preference at least as strongly as gender identity. Another related point raised by this research is that, when polled, Carr’s subjects expressed certain preferences for games with particular features, however these stated preference were not strongly supported by the observed behaviour of the girls in the club; with many girls eschewing games with the features stated in favour of other games without those features. It seems that the social context of the club and the experience of playing different games had a greater effect on the actual games played than preconceived notions of what constitutes a good game. This last point has implications for any research which relies solely on interview data or some other statement of preference, such as that reported in this thesis. Preference then must be contrasted with experience, either in interview or, preferably, observation.

How any individual player might engage with any individual game is generalised out to group principles, but we have an inkling that we might need to look beyond the list of game features (at least for teenage girls) in attempting to predict what people might actually engage with. This study is also interesting as it gives us a somewhat longitudinal view of engagement and preference with multiple players being given choice to engage at will with multiple games and find pleasure where they can. Perhaps this gives us a broader and more representative view than studies which focus on a small number of games, and is in stark contrast to 'playability' studies which engage 'expert' players in evaluating a single game (e.g. (Davis et al. 2005)), and perhaps this breadth gets us a little closer to a general theory of videogame engagement.

1.4.11. Barr, Noble and Biddle

A broad approach, with distinct theoretical underpinnings and conclusions, is taken by Barr, Noble and Biddle (2007). Utilising a combination of Activity Theory and Structural Semiotics with empirical methods to examine the 'values' present in any game or gameplay activity in order to understand how any game "and games generally, actually work"; which appears to be an expression of the overall research question we are exploring here.

Barr et al take Rokeach's (1973) definition of value ("*An enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence.*"), as well as other theoretical constructions from their chosen fields, to inform qualitative analysis of five distinct single user games, interviewing and recording the play sessions of five players for each. In combination with their own structured subjective analysis they take the above definition of value to refer to any mode of conduct from "maximising points in Tetris" say to "benevolence"; essentially suggesting that ludic motivations or goals are value systems (or can be combined into such).

The example given of one case study (Pippin Barr et al. 2006) is of the values present in Fable. This previous work suggested that in playing Fable (Lionhead Studios 2004) a player has two key motivations to play: 'play' and 'progress'. Barr et al take these previously hypothesised motivations as fundamental videogame values, applicable in a universal sense for all single-player games. In this case these motivations, from an Activity Theory perspective, could be considered to be goals of the player. Another given example of the motives for playing a round of Counter Strike (Valve Corporation 1999) includes 'winning' and 'showing off' as the values, goals, or motives of the player. In this sense it is difficult to see how this method helps us understand why a player might be

playing Counter Strike to ‘win’ and ‘show off’ rather than some other game or activity, these stating ‘values’ in this way might suggest that games are set up to be played in certain ways, but not what differentiates the engagement a player has for one game relative to others. These examples and their expressed application of Structural Semiotics reveal a micro-level analysis of the values or value-structures of 'gameplay', accounting for the actions required by a player to achieve goals presented by the game and the ludic valence of values that might be present. A further example of this micro focus on ludic values is given in the analysis of Half-Life 2 (Valve Corporation 2004) where Barr et al state a core 'value' of aggression, demonstrated by proposing that the converse value of 'pacifism' is discouraged as the player adopting a passive approach to play will find it more difficult to progress in the game due to “repeated dying”. It is difficult to see clearly how this type of analysis relates to player engagement. Essentially this is a semiotic evaluation of games as played objects, accounting for some apparent and principally ludic value systems (such as score or level achieved); relating these proposed 'value' systems to the reports of players of the selected games in their, isolated, play experience. In this respect the approach is an interesting means by which we might understand a game from a value centric 'HCI perspective' at the level of successful and unsuccessful modes of play, such as winning or losing say, but what is it about the opportunities to 'win' or 'show off' that results in a player engaging with Counter Strike over, say, a multi-player game of Pro Evolution Soccer (Konami TYO 2001) which might also present opportunities for the player to win or show off their skills? Are there other factors at work than just the values presented by an individual game?

1.4.12. Rozendaal et al

The most recent publications I will cover in this section are from 2009. Both Rozendaal et al (2009) and Febretti and Garzotto (2009) take the familiar approach of taking a

stance as to what factors influence videogame engagement most and then test these hypotheses with respect to their effect on measures of player engagement.

The approach taken by Rozendaal et al. was to determine that 'richness' and 'control' were theorised to contribute greatest to player engagement. Using this position they set out to validate this proposition experimentally. They developed a custom game which could be modified along the hypothesised dimensions and performed two repeated measures experiments. In the first experiment they repeatedly tested ten subjects under a comprehensive set of conditions, and in the second experiment they similarly tested twenty five subjects under a sub-set of these conditions. Each condition varied the degree of 'richness' (or complexity) and 'control' (the amount of influence the player may or must have over proceedings).

The correlated results show that there is a relationship between richness and engagement and between control and engagement. However the results are not purely linear, showing that ever increasing 'richness' eventually results in a lessening of engagement and sense of control. This result is interesting as it shows that early conceptions of how games might engage were potentially incomplete (for example Greenfield 1984).

In their conclusions they suggest that there are likely to be other factors in a player's engagement with a game such as social factors. This suggestion leads us to believe that the results of these experiments should be viewed as interesting observations about two potentially influential factors, but these two factors are not the only factors involved. How do we contextualise richness or control?

1.4.13. Fabretti and Garzotto

The factors of 'richness' and 'control' might well be related to Fabretti and Garzotto's (2009) Usability and Playability in their investigation of 'long term engagement'. In their study they report having applied heuristic analysis to eight games which were selected on the basis of their commercial success and that the researchers felt that they suffered from usability failings. These heuristic analyses were used to rate the games in terms of playability and usability. In order to determine how engaging the games were, the eight games were tested by users and rated, and media reviews were combined with these user ratings to determine an overall engagement rating. The overall hypothesis driving these ratings was "Does usability truly influence long term engagement? In particular, do usability problems reduce long term engagement? Or is long term engagement more strongly related to other design features, those addressing "playability" per se, which may overwhelm the influence of usability defects?". In order to test these hypotheses they statistically examined how their various ratings correlated.

Their results suggest that usability, as rated, has no significant relationship with player engagement, though the ratings of playability did. This result might suggest negative implications for studies which focus on usability factors, such as that of Fabricatore el al (2002). In terms of the individual heuristics used in order to arrive at the ratings of usability and playability, it is interesting to note that there is low correlation between both 'objectives and feedback' and 'concentration and immersion' and the rating of long term engagement, contrary to the fundamental assumptions of theories such as Flow (Csikszentmihalyi 1990) or the findings of Brown and Cairns (2004), where we might expect clear objectives and feedback to be a critical indicator of engagement (Flow) or concentration and immersion to be the end point or peak of the experience (Both Flow and Immersion). There is also no significant correlation between 'control' and reported

engagement which is also contrary to the fundamental positions of some such as Rozendaal (2009) who place this at the centre of engagement.

However these results must be questioned in terms of the wisdom of the methodology. Is it possible that with a heuristic evaluation of playability that we are capturing some measure of the evaluator's subjective sense of engagement with a game, hence making a generalised correlation of players' sense of engagement and the derived heuristic rating of playability in fact both means of rating the same thing? What of evaluating player engagement and then 'validating' their reports with game review scores? Surely a game review is often a type of expert evaluation of which the heuristic analyses are a formal type. Thus isn't it quite likely that the measures of playability and engagement are in fact the same thing rendering the fact that the scores correlate quite uninteresting?

It is interesting to note that the evaluations and ratings of usability seem to have little in common with ratings of engagement, that an independent sense of ludic quality, or playability, is critical to engagement. Though stating such seems potentially tautological (more engaging games will be rated as more playable, while a sense of playability is contingent on how engaged in the experience a player was).

1.5. Remaining questions

Many of the above approaches employ multiple factors to account for the differences between players' engagements in videogame play From Choi el al with Cognitive and Perceptive fun to Ermi and Mäyrä's list of possible powers. Is it possible to perform some kind of meta-analysis on these many factors in order to merge these various theories into a kind of principle of game-play and videogame engagement? Can we utilise these theories to understand what is going on when individual X plays game G, or can we use these to predict how a that player might engage

with new game H? My personal impression is that such an application of such factor based theories would be quite difficult without some guiding principle, or fundamental hypothesis related to how these factors are resolved in any particular experience. For example, what is the relationship between Malone's Challenge, Curiosity, and Fantasy that has John play Ultimate Imagination Force XII all day whereas Jane can barely manage 5 minutes before switching to something else? Are these factors properties of the game or the player? Is Malone's observation that the gender of the individual effects the kind of features sought a demonstration that individual differences are key to understanding engagement? Are these factors then subjective assessments of an experience rather than objective properties of games? Are there other indicators of individual difference which have a bearing on videogame engagement, other than gender? Is there a causal relationship to be found in any of this?

Theories with possible broad, and potentially causal, applicability are those such as Carr's impression that past experiences shape taste and thus preference and engagement, and Ermi and Mäyrä's observation that their subjects seemed to be seeking "empowerment or imaginative liberation", but without unpacking how these are resolved, and precisely what influence these effects might have on an individual's behaviour there is still work to do to obtain a unifying hypothesis about just what it is that has one player engage with a particular game and others not.

From the empirically derived or tested theories encountered above we can see that they are often bound to observations about specific types of games, or limit their studies to certain demographic groups and are thus restricted in their scope for explaining game play in a broadly applicable sense and instead focus on subsets of games or narrow sets of players. As such we are still looking for an empirically derived or validated theory or model of videogame play that accounts for males and females, young and old, experienced or inexperienced players playing action games, role playing games, puzzle

games, adventure games, and games that haven't been devised yet, at home with friends, at home alone, on the bus, at work, in the arcade, at school, in the games shop, or anywhere else games might exist. Perhaps there is no commonality between all these conditions. Perhaps any conclusion, be it a broad concept or a multivariate model, would be so general as to be useless in understanding the specifics of videogame play, such a theory necessarily being at a level of universal human subjectivity instead of at a granular level of recognisable videogame or features of a game play experience.

So how would one set out to find such an answer? How would one find out what videogame play is or what the fundamental features of videogame engagement (and thus disengagement) are? Do we poll theories from other fields and domains and modify them to relate to videogame play? Do we select from these theories analytically and validate seemingly 'best' candidate theories empirically? Do we forego the idea of a set of factors or hypotheses as a useful answer and focus on case studies to suggest a series of narratives from which we can draw multiple conclusions at multiple levels of abstraction? Do we start from the beginning and extensively examine the domain to determine where to look, what to look at, and eventually zero in on what is important? Ultimately the approach taken will depend on the type of answer we are looking for, and I feel that a most interesting product, at this stage of development in the field, would be a broad hypothesis with a degree of explanatory and predictive power (a principal dependant variable). So an answer of the form "players play games because *X*" and by extension "Player *A* plays game *J* because of an instantiation of *X*", is the ideal sought. Of the reviewed research the theory which seems closest to this form is that of Carr (2005), who suggested that an individual's taste is experientially and socially derived (though we cannot be certain that this is not an observation exclusive to teenage girls active in a games club); so players play games that they have experienced elements of before or have received positive feedback about from their social context. An example Carr

presents is where some girls came to play a certain game when they saw others playing it and thus experienced it in the agreeable social setting of the games club, but had expressed no interest in doing so until they had that experience.

This level of answer seems most appropriate as a first step. From this point we can look for exceptions in the domain and relationships with other theory and quickly see where we should adjust our thinking. Taking Carr's example we could suggest that her theory might have poor predictive power as it seems obvious that any access to and thus exposure to a game is not necessarily going to result in a degree of positive engagement, and it is difficult to see how any engagement might occur without exposure or recommendation, though we can't dismiss the hypothesis out of hand, we would just need to potentially look for conditions and features of this behaviour, and modify the theory accordingly.

In summary then, there are no empirically derived or validated theories which yield hypotheses at the level of operation which is of most interest to us at this time. That is are there universal factors or principles which can help us predict why any prospective player might engage with any game at any particular time.

1.6. Related concepts

Having examined some attempts to resolve questions of videogame engagement the following subsection will explore how the theory presented later in this thesis relates to other ideas from a fairly broad spectrum of fields.

While there has not been a clear expression in the literature that engagement with videogames is determined by a process of continuously summed value judgements set against a sense of culturally relative identification, as the later chapters of this thesis propose, there have been many theories relating identity, self-culture, and social selves and how they might be developed and performed in almost every area of the social

sciences. There have also been some attempts to show that an individual's relationship with an experience is not an instantaneous and fixed value judgement, but develops over time, and has the potential to eventually influence the self-sense of the individual in turn.

In this section I will summarise some of these overlapping theories and highlight, where applicable, how and where they might have been used in literature relating to videogames and the relationship with the grounded theory to follow.

The broadest area is that of the personal, yet potentially socially relative, sense that players are playing games that they feel that they can identify with. This sense of identification with activities could be said to be cultural if we take a definition of culture as Tylor's: "Culture, or civilization, taken in its broad, ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society." (1874), suggesting that an individual acquires such things and presumably acts according to them. This is distinct from a 'social' frame as the individual might be said to hold and maintain their culture (and cultural identity) in the absence of others, so they are acting culturally even when they are not acting socially (in the presence of and thus relative to others).

Theories which have looked at the relationship between the self and society in this way have been developed since ancient times, but I will focus on much later theories; starting with the American Pragmatist school theories of the self from the Symbolic Interactionist perspectives of Cooley and Mead, moving through performative theories such a Goffman, and situated cognition theories as applied by Gee, postmodern theories as they have been used to refer to games, biological theories of pleasure, psycho-social theories of choice, and finally broad theoretical approaches to value and identification in Human-Computer Interaction and Game Studies.

1.6.1. Cooley's 'Looking Glass Self'

Cooley's conception of the 'looking glass self' (1902) is an ideal place to start as this idea, which went on to help frame what has come to be known as Symbolic Interactionism within Sociology, has also helped to contextualise the some of the theory presented in this thesis. Cooley's idea is that an individual's identity is formed by their expectation of the responses of others. This identity is then performed and maintained outside of the social influence of others. So the main observation in this thesis relating to identity (that players implicitly seem to ask themselves if they are the *kind of person* who would engage in such an activity) can be reconsidered using the looking-glass self to suggest a state of reflected judgement. One might imagine that in the simplest sense the player is asking "If I saw another person playing this, what would I think of them?" and thus "If someone saw me playing this what would I expect them to think of me?" and in combination "If I play this what do I think about me?". The player then could be said to be making value judgements about the meanings expressed by their play activities. What is the meaning of their commitment to overcome the challenge presented, say, or what does it mean if they play a game with child like presentations of the in-game characters? The meanings are ascribed values which are cultural in nature; the player applying their socially acquired aims and morals in a personal way, but referring them in a relative way. Expressions in the data such as OA's sense that he is not the kind of person who would watch a boxing match, so he doesn't seek pleasure from beat-em-ups, demonstrate that the assumed identity roles are most often expressed as negative cases, the potential player not being the kind of person who would engage in such an activity.

This ascription of cultural roles, or the performance or embodiment of socially acquired values, could also be related to other conceptions of social selves and the values demonstrated by an individual's cultural performance. The following section deals with

one influential version of socially constructed role performance, in Goffamn's Dramaturgical Perspective, but there are other possible concepts we might relate these ideas to. For example, the concept of Habitus is ancient in origin but has relatively modern interpretations. Habitus as used by such as Bourdieu (1990) represents a sense of the culturally relative behaviour of an individual. The unconscious adoption of social norms gives rise to modes of behaviour which are embodied by the individual tacitly. We could say that one expression of this habitus is an individual's identity which is constructed in a social context and is thus fundamentally cultural. Habitus, as used by Bourdieu, is a concept concerned with observable behaviours and only implicitly accounts for values and beliefs, but it is obvious that the two interact (society forming ones beliefs and values via enculturation and thence one's beliefs and values informing ones behaviours within society, reinforcing social structures). Bourdieu's work on taste is explored in detail below, but his use of the concept of Habitus is interesting and may help to frame some of the concepts developed and explored here. However the theory presented in this thesis has a strong sense that subjects present individual identities. They do not seem wholly ignorant of these identities and how they are presenting themselves; in fact they often seem to consciously locate themselves as individuals relative to others, with attendant values and tastes. While it is true that they might not ascribe an explicitly social origin for this identity, their identity expressions often betray cultural expectations.

The chapter of this thesis which deals with how an individual engages with videogames as an expression of identity, explores the data and the substantive theory that was derived from it. As Cooley was an unexpected influence on the expression of the theory presented here his ideas are included within the chapters dealing with the theory directly, but other concepts with relevance are explored here. For example in exploring socially relative expressions of identity we might look to Goffman.

1.6.2. Goffman's 'Dramaturgical Perspective'

This sense of assumed identity roles opens the possibility that a person's actions are essentially performative; the individual assuming a role according to the context they find themselves in. Goffman's dramaturgical explanation (1959) of social behaviour holds that individuals perform a multitude of socially expected roles according to the social context they find themselves in; presenting a self role as if it were a character being played on a stage in the theatre. While Goffman's primary aim was to show that in work situations a worker assumes quite specific roles and attendant attitudes and patterns of behaviours in order to maintain a mutually understood set of actions and outcomes, his work can be interpreted as relating to the expression of identities in other substantive settings. If we consider that games players might be playing roles in this way, especially when questioned about their play activities, we could say then that if we assume, as will be demonstrated below, that the potential players implicit question of 'am I the kind of person who would play this kind of game?' could be rephrased as 'In playing this game am I performing an acceptable role in this social context?'. Goffman suggests that these assumed roles are not necessarily 'acts' which the individual assumes independent of some core identity, but in fact aspects of the actor's fundamental character. This attempt to suggest that acts or roles represent the fundamentals of a person's character or identity seems a little bit odd given that Goffman's theory revolves around a theatre metaphor, and the different behaviours observed in different areas of the theatre. So he suggests that a role is being played on the 'front stage' in front of the audience, and that the actors create an agreeable ensemble performance, but once 'back stage' can drop their assumed characters out of view of the audience. If, as Goffman suggests a personal identity is simply a set of roles being performed, then he breaks the metaphor and removes the concept of the 'back stage', the individual is always 'front stage' wherever they are in the metaphorical theatre, 'front stage', 'back stage', or in the auditorium. If

we allow for a ‘back stage’ set of behaviours, might we assume that these are the individual’s actual identity and character, and no longer a performance? We might illustrate this problem outside of the context of the workplace, say in terms of Multiplayer games (especially MMOs). Here Goffman's dramaturgic metaphor might be somewhat useful in studying role-playing, and party or clan behaviour, but in general gameplay (offline, co-located multiplayer, and not massively but still multi-player online games) cases, 'Am I the kind of person who would play a game like this?' becomes a little bit more difficult to place front stage or back stage. Is the player front stage, playing a particular role in response to the expectations of an audience? If so who is or are the audience? Perhaps as Cooley argues, the audience is oneself and an imputed impression of how one might be judged by absent others. Is the player back stage and performing a non-role; a role, in the absence of an audience which we might imagine is a non self-conscious expression of a ‘real’ character?

If we assume a somewhat heterophenomenological stance to the collection and analysis of interview data, and are tentatively confident that the expressed sentiments of interviewees, at least in part, describe actual attitudes, we might ask what role or roles the subjects are presenting. If they are indeed presenting a role are they in possession of a set of persistent cultural values or are we only observing a temporary and chameleon like identity? Is each interviewee acting the *role* of interviewee and concealing a set of 'back stage' values? Are the interviewees acting a 'back stage' role that represents a kind of core self-sense, which will then be concealed in other social situations? It seems quite apparent that when we are exploring the tastes and values of individuals relative to leisure activities, applying Goffman's performative system raises more questions than it answers. If we compare the stated actions and tastes of several people we can draw inference about the overall process of engagement. In order to do so however we must assume that, if such a thing exists independent of some core self

sense, the interviewee is employing the role of “interviewee” which (one would hope) includes a high degree of honesty in what the individual expresses.

1.6.3. Gee's application of concepts from Situated Cognition

In thinking about the relationships between roles and identities, and the behaviours these might bring about, Gee has taken an approach which seems to fit between a stable self-sense and the kind of role performance stance taken by Goffman (Gee 2003). Gee suggests that individuals maintain a wealth of relative identities which are then invoked in suitable situations. So currently I am writing from the identities of male, English, emerging academic and when I shut down the computer for the afternoon I might assume the identity of jovial pub patron or relaxed house mate. In terms of 'Am I the kid of person...?' Gee's perspective is that the situation invokes the relevant identities and then these identities, and the values they represent, are applied, role like, to the individual's pattern of behaviour in the current context. This theory seems close to what is being proposed in this thesis, but that individuals are composites of an infinite number of possible role identities is Gee’s attempt to reconcile the subjective feeling of a single, stable personal identity and the apparently inconsistent adjustments in behaviour determined by context, while the sense of identity employed in this thesis does not employ multiple personalities to account for user’s engagements with videogames.

Gee's work mainly falls on the side of a Goffman like assumed role position, particularly when he explores the motivations to play videogames. Unfortunately here he seems to fall into the trap of assuming that “videogame” is a synonym for “virtual world” and that in playing such games the player's avatar mirrors the invoked identities of the player. The theory I have presented in this thesis places avatars as a single possible factor among several suggested points of identification. Often avatars and characters were barely mentioned by subjects if at all. If one considers what might be called “the Tetris

argument” [1] it is hardly surprising that players are identifying themselves as a 'player' not as a player/avatar cyborg much of the time. What *kind* of player being determined by the individual's sense of cultural values, not necessarily the values of the game they are playing. That is not to say that players cannot play roles in games, but that they play roles they are comfortable with suggests that there may be a fairly stable sense of identity exerted by the player in the games they play.

1.6.4. Csikszentmihalyi’s Flow

Having invoked “the Tetris argument” it would be wise to introduce a discussion of Mihaly Csikszentmihalyi's concept of Flow (1975, 1990). Flow has been used in describing the challenge inherent in many action videogames (Sweetser & Wyeth 2005), of which Tetris (Soviet Academy of Sciences 1984) might be considered one. The conditions of Flow are often taken from Csikszentmihalyi's explanation of how Flow might be achieved and maintained for a tennis player, in that the challenge must approximate the player's ability. Too great a challenge and the player becomes frustrated and too little challenge and they become bored. This seems to mesh quite well with the challenge of an action games, such as Tetris, where the game becomes progressively more difficult or even why a player might not play a game because it is 'too hard' or 'too easy'. However I believe

[1] A typical argument against assertions that players are engaged by such gameplay features as a story (back story or in game narrative), avatars and characters, virtual environments, or graphical quality, in that many many people have been engaged by Tetris over the years and it has no story other than a basic ramping difficulty level until the player inevitably loses type of abstract narrative structure, no avatars or even characters, an environment which consists of a 2 dimension grid of squares, and a graphical presentation which is simple enough to be played on any machine with a graphical display.

that this aspect of Flow has been taken out of context relative to Csikszentmihalyi's greater thesis. Csikszentmihalyi states just prior to the above example in "Flow: The Psychology of Optimal Experience", 1990:

> "*In our studies, we have found that every flow activity, whether it involved competition, chance, or any other dimension of experience, had this in common: It provided a sense of discovery, a creative feeling of transporting the person into a new reality. It pushed the person to higher levels of performance, and lead to previously undreamed-of states of consciousness. In short, it transformed the self by making it more complex. In this growth of the self lies the key to flow activities.*"

Csikszentmihalyi (1990) then goes on to provide many more examples of Flow activities and suggests that they are all means of avoiding psychic entropy (or personal chaos). Ultimately he suggests that by applying an overall personal 'meaning' to everything one does, one might be able to make life itself into a Flow activity.

In interpreting Csikszentmihalyi's use of the term 'meaning' (as 'significance' or 'import'), I would argue that Csikszentmihalyi is suggesting that people are looking to engage in activities they most value, and if they can find activities that allow them to grow personally, relative to this value system then they have a good chance of achieving an agreeable Flow state.

How an individual comes upon these meanings or values appears to be informed by the social background and individuals' assumed roles within this context. Csikszentmihalyi also places importance in an individual's personality, suggesting that those with a more 'autotelic personality' will be more capable of Flow than others with less of a predisposition to engage in things for their own sake. This idea that there may be a variable, innate predisposition to engage in activities irrespective of the instrumental

value of the outcome seems to suggest that engagement may not be a function of the socio-cultural value of the activity. I believe this is not the case. Most of the examples Csikszentmihalyi gives are of individuals or groups engaging in activities with little end product to show for the endeavour hence his insistence that his concepts deal with intrinsically motivated autotellic individuals, however the activities themselves must be valued in some way, so while the activity might seem to offer few extrinsic rewards rewards are not wholly absent, just more difficult to spot than easy to identify qualities such as money or status.

In light of Csikszentmihalyi's thesis, that highly engaging activities are their own reward (Csikszentmihalyi 1975), it is interesting to note that many potential players of videogames are reluctant to become engaged in them, because of the power they have to engage. Some subjects report having experienced game playing which they describe in terms consistent with Flow, but rather than finding personal growth in this experience; rather than feeling that they were being transported to a undreamed of states of consciousness, they rather found the hours spent in the activity of game playing to be a waste of time. In this respect, I take his sense that a Flow experience must be 'meaningful' (not like watching television to use one of his examples) to suggest that they are in some way accepted or valued by the culture of the individual playing them.

1.6.5. Games as socio-cultural drivers

Writers such as Raessens (2006), especially those approaching games from a pedagogic or other approach related to children and young people, focus on how games might have the capacity to shape the cultural identities of players. I have one major problem with these approaches, they assume that games are somehow inherently engaging, and that as young people inevitably play them they are personally shaped by them; assuming roles and values associated with the experience of playing the game (for example see

Gallelli and Fanelli 2010 or Christoph, Dorothée, and Peter 2009). A related approach is to assume that 'gaming' is some coherent community with well defined practices and values (from approaches taken by such as Lave (1991)) and that becoming a gamer within a particular genre or especially a particular Massively Multiplayer Online Role Playing Game (MMORPG) is 'becoming' or learning the culture of the other players of these games. For example Pearce (2006) explores how communities of players move from one MMORPG to another. My criticism of these approaches is not to say that communities cannot exist around play experiences, or that these communities do not have their own sub-cultures which must be learned and adopted by players. My issue with such approaches is that surely such an enculturation into the field of the game is not universal of all play experiences. Do we imagine that a player is necessarily learning a new way of being and behaving (a new culture) in order to play Solitaire on his telephone?

These theoretical positions where a game, or the community associated with playing a game in a certain context, influences the culture of the player, only seem to represent part of the equation. A player is not a cultural blank slate to be populated with values and identity by gaming, rather a player is a socially realised cultural identity, even from an early age. This identity informs if, when, and which games will be played, how these games are played, and how these games are integrated back into the player's cultural identity. To quote a translation of Bourdieu (1990) “The conditionings associated with a particular class of conditions of existence produce habitus, systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is as principles which generate and organise practices and representations that can be objectively adapted to their outcomes without presupposing a conscious aiming at ends or an express mastery of the operations necessary in order

to maintain them.”. While I am not claiming that experiences do not shape individuals (or their habitus), I am suggesting that to only look at how players are possibly influenced by their experiences of playing games might miss critical information about what the play experience actually is. That is in integrating these experiences back into the player's self-culture, games may have the capacity to shape the identities of players, but they have to play them first in order for this to happen, how do they get there?

1.6.6. McCarthy and Wrights' experiential concept

One approach which accounts for these cyclical relationships between identity and an artefact is that taken by McCarthy and Wright (2004). While their approach is related to a broad range of technological artefacts, much of what they discuss crosses over with what I have to say in this thesis. Indeed their approach of taking the Pragmatic stances of Dewey (1934) and Bakhtin (Collected in 1993) to understand the felt experience of using, interacting and living with technology has a great deal of overlap with my findings. One point of similarity is that they also recognise that an engagement is not simply a single (or repeated) instance of use, but also contains expectation and reflection, placing the experiencing subject and the object of experience in the broadest context. The breadth of this context extending out into personal conception of personal meaning and cultural value of the individual's life, not just their life related to the technological artefact. This consideration of the overall felt experience (history, reflection, context) of the individual then determines the degree of meaning and value they then apply to the experience they are having as they have it.

Where their position is clearly different from that of this thesis is that they regularly expound the view that technology is transformative, that the use and interaction of technology transforms the mores of society and hence the culture of individuals within it, while the position of this thesis is that the construction and adoption of videogame play

is shaped by the culture of those producing and playing respectively. This might seem like a minor point, especially as McCarthy and Wright break down the processes of an experience into Anticipating, Connecting, Interpreting, Reflecting, Appropriating, and Recounting, which can be broadly mapped to the cycle of engagement I have proposed here (select, play, reflect), but that a technological product can have an effect on its users requires that they first *choose* to engage with it. This choice is informed by their pre existing culture, and only by adoption within that cultural (social or personal) context may the product have a transformative effect on further iterations of the cycle.

So while McCarthy and Wright have focussed on the transformative power of a technology, using similar concepts to those I have developed here, I have focussed on the conditions of engagement with a specific type of technology.

1.6.7. 'Meaning' vs 'Value'

I feel that I must again point out that Csikszentmihalyi, Wright and McCarthy and others make use of the term 'meaning' and the derivative 'meaningful' in the sense that a thing is important or significant. In this thesis I have preferred to use 'value' to suggest both positive or negative judgement, magnitude, and to avoid confusion with the more general semantic or semiotic uses of the terms meaning and meaningful, which may be expressed as 'what is signified or intended'. While I am not suggesting that there is no place for discussing meaningful experiences or meaningful videogames, it is easier to relate the aggregate of judgements I have expressed here as values (in my case socially derived cultural values expressed as an identity). There is one possible point of confusion in this usage of 'value' that I will also deal with and that is where 'value' is taken to represent a high social value such as honesty or courage. This usage is not my only intention, rather I intend value to represent the worth or merit of a thing (in my case the attitude of potential players to games they might play). This sense of value coming from

a Cooleyesque sense of how the player sees themselves, which is similar, but not identical to Bakhtin's dialogic construction of self or Dewey's pro-social, active self. A value being a positive or negative judgment toward a thing based on how we feel this attitude (and associated action) would represent how we see ourselves.

It might seem that what we are discussing is taste. Indeed we are, but we might re-formulate taste as an expression of a socially located self. How this self relates to the playing of videogames can be expressed in a multitude of ways from 'hardcore gamers' who identify with playing as engaging in a prized activity which rightly takes up much of their time, to complete rejecters, who for various reasons, have decided that games really are not for them; that games are for other people.

1.6.8. Bourdieu and cultural capital

These enculturated values and their relationship to a person's sense of taste might be expressed as the player seeking to reinforce 'cultural capital' (Bourdieu 1986). Bourdieu uses 'Cultural Capital' to refer to the knowledge, values, and modes of behaviour that promote or confer a potentially elevated position in society. That is culture that has a value. He separates cultural capital from economic (money and assets) and social capital (valuable interpersonal networks) to suggest a distinct economy, operated in its own way to reinforce the position of the privileged social classes. In his book on taste (Distinction, 1984) Bourdieu proposes that the tastes and culture of a society (particularly his native French society) are legitimated by the upper classes. The upper classes determine, by their employment of a combination of economic, social, and cultural capital, what is 'best' for society and thus a national culture. It is this culture which is then taught in schools, and which the other classes aspire to acquire. The variability in the observed behaviours and held values (or habitus) between the classes represents the ability of families within those classes to redistribute accumulated capital, by inheritance or gifting

of economic wealth, introducing or socialising with individuals with influence, and by educating their children in legitimate modes of behaviour both formally at school and informally in the familial environment. Upward social mobility then requires accumulation of each form of capital.

As a sociological analysis on power structures and social mobility, and how such mobility is manifested in cultural capital as evidenced by the expressed tastes of the different classes, Bourdieu's work is interesting. Indeed we might observe the taste relationships he describes in the data collected for this thesis, especially in the expressions of those who reject videogames as a legitimate leisure activity. We could say that the videogames such people have encountered did not strike them as an activity which they should be engaged in, as they lack legitimacy and are thus of no value. They will not learn about the intricacies of the 'hobby' as it is 'not for the likes of them' and anything they do learn about videogames will not seem to provide them enhanced cultural capital. Other forms of entertainment (theatre say or reading) give them legitimated knowledge, knowledge they can use to appear to be 'cultured'.

While gender is often discussed in respect to taste in videogames, it is interesting that Bourdieu found much greater variation between social classes than he did between genders when investigating the tastes of hundreds of French citizens. As a Sociologist his emphasis is on social structures that give rise to group behaviours and how groups appear to dominate others. To reframe what he has said to relate to experiences at an individual level, where an individual embodies the culture they have acquired from their own social context, expressed as values and behaviours, we see clear similarities with Dewey's (1934) 'Experience' approach to understanding aesthetics, where the life history and learning of the individual viewer is critical to their personal appreciation of an object as a pleasing art object rather than some inherent property of the object. Bourdieu

highlights some of the conditions for how this difference in appreciation might occur, however his emphasis on legitimation of culture by a dominant class does not clearly account for the great pleasure individuals might find in supposedly illegitimate culture (such as videogames). Let's take an example that is neither art nor videogame and consider sport. For many the spectacle of watching a sporting event (say an Association Football match) amounts to an intense aesthetic and social experience. For Dewey the intensity of this experience would be contingent on the prior experience and knowledge of the spectator. The 'fan' might have been born in the host town of the team, and hence they might have a sense of social connection with their success. They might have played football themselves, and thus have an appreciation of the nuances of the skills and tactics required to succeed at the game. They might have followed the fortunes of the players, the coach, and the team for many years and have a sense of investment in their fortunes. They might have many friends who are also football fans, with whom they discuss and debate the latest developments of the sport. All of these supporting experiences give the individual background upon which their appreciation of an individual football match rests. This appreciation is not contingent on the legitimation by a dominant class. No the upper classes are potentially otherwise playing their upper class sports in their own way, and there is no sense that Association Football needs such legitimating in order to attract huge investment, a huge following, and yes, to be taught in schools. Videogames are a little bit different to football. The specialist press often contains articles about videogames as an art-form, but yet game-like interactive digital art is seldom seen in galleries, especially the large public galleries (such as The Tate Modern in London say). If Bourdieu is right, this slow adoption by the fine art world is possibly due to a lack of adoption by the art appreciating dominant classes. So videogames are not an established art form, and playing them will therefore be deemed by some as a waste of time compared to appreciating a painting, reading a good literary

book, watching a well directed film, eating at a fine restaurant, watching a well reviewed play, or listening to a well conducted musical performance, but videogames still engage huge numbers of people. Bourdieu suggests that the paranoid grasping at the trappings of the upper classes is a middle class affliction, and it may be that the people I interviewed who feel videogames were not for them; a waste of time, may well be described as middle class and thus prone to this affliction more than others who might be from other classes, though this is not a factor which was sampled for and the implicit demographic spread of interviewees might (gamers and non-gamers of apparently working to middle class origins) not support this claim. It seems to me that in order to resolve Bourdieu's observations about the tastes of classes to account for individual's observed behaviours and expressed opinions, a sense of identity needs to be included. Thus if an individual feels that they belong to a certain class, then they may well assume specific value positions to cultural objects according to their view of the correct positions for someone of their class. Thus class forms habitus, and personified habitus I would argue is an expressed and embodied identity. In relation to a sense that identity is contingent on context, and can shift according to circumstance (Gee) or expected role (Goffman), Bourdieu suggests this is another affliction of the middle classes. In striving to demonstrate their upper class credentials, the middle classes are committed to interpreting the symbolic relationships between the classes and are "haunted by the appearance he offers to others and the judgement they make of it.". That those of intermediary position must constantly shift their values and presentation in order to fit in with the context they find themselves in. Such an assertion, that conveniently assumed roles and identities are the affliction of a particular class, also seems to argue against a sense that an all individuals' senses of identity are formed by an impression of imputed judgements of others also argues against Cooley's Looking Glass self. Suggesting that for the highest and lowest classes of society, values and behaviours are not informed by a

process of self reflection, but are simply acquired as habitus by being enculturated into their particular social strata.

The important ideas to take from Bourdieu for this thesis are that certain cultural artefacts (ideas, behaviours, objects, or social values) will constitute a form of capital, desired, sought, and invested in by those with the means (financial means, social contacts, or time). I will argue that whether an individual values one thing more than another may be determined by their class, but may also be determined by any other effects on their culture, that is anything which may influence their identity or habitus including their age, nationality, gender, social contacts not contingent on these other factors, or any other influence on who they are. Which variable has most effect is not explored, as to do so would be to explore the very nature of identity, which is beyond the scope of this current thesis, but may well form the basis of future work.

1.6.9. Summed values and choice

Bourdieu places the symbolic choices people make in the space of investment in (cultural) capital. That is some cultural stuff is valued more than other stuff and will be pursued with greater investment, where some stuff is not valued and no investment will be made in the acquisition and retention of it. For Bourdieu the decisions regarding what to invest in are made by the individual's habitus, the values and behaviours they have acquired from their social background which are performed tacitly, without conscious reflection.

Another body of work which addresses humans evaluating and acting upon values is known collectively as Rational Choice Theory.

Often seen primarily as an approach taken to explain collective behaviours such as economic behaviours, by accounting for individual, rational choice, Rational Choice Theories are based on the assumption that people will generally seek to maximise the

good things in their lives and minimise the bad. If, as Utilitarian philosophers such as Bentham (1789) argue, we take anything which is pleasurable to be positive and anything painful as negative, then a rational individual will seek to make the most of the pleasures and avoid the pains. It is this sense of rationality which has formed much of the study of human decision making and choice in the last three centuries, often (especially when dealing with economic behaviour or the behaviour of large groups) employing a type of algorithm, possibly similar to that of Bentham's Felicific Calculus which attempts to enumerate the pleasures and pains felt by people and arrive at a moral value of a thing for those individuals. So how people make decisions, according to this classical model could be said, in general, to them maximising the 'goods' in their life and minimising the 'bads'. A more recent expression of this type of reasoning within Sociology is that of Homans: "The more valuable to a person is the result of his action, the more likely he is to perform the action." and "In choosing between alternative actions, a person will choose that one for which, as perceived by him at the time, the value, V, of the result, multiplied by the probability, p, of getting the result, is the greater." (Homans 1974). These statements seem similar in form to the kind of evaluation suggested in this thesis, however the degree of similarity rests on whether we think the choice rests on some sense of objective value, whether such value can be literally enumerated, and whether we think the final result can be expressed as the product of rational behaviour as much as the choice being made on rational values.

To comprehensively cover the millions upon millions of words written about Rational Choice in the last 3 centuries would much more space than available in this thesis, as such rather than exhaustively cover all the different perspectives of Rational Choice from areas such as Economics, Criminology, Politics, and industry as well as alternative views such as Sociological Choice Theory (Rational Choice with an explicitly Sociological

perspective rather a supposedly Psychological one), Naturalistic Decision Making (an alternative view which supposes that often decisions are made with incomplete information under time pressures with the decision maker employing expertise and bias), and Game Theory (where choice is viewed as a competitive process in a closed system), and all the ways these approaches have been criticised and discussed, this section will explore some works that have presented a position which touches on the findings of the research presented in this thesis. In that we are not supposing that our problem is a sociological question of collective action and choice; we do not assume that a player becoming engaged in a game is doing so in a context of time pressure (whatever the game mechanics); nor are we assuming that players are competing to achieve the best engagement available. So the theory presented in this thesis is not one of Rational Choice which is usually considered to be a field of study concerned with political and economic collective action. Indeed, the move to present rational choice in terms of purely cultural values is a contentious one (Shapiro 1998), but one that has been attempted in several ways (e.g. Boudon 1996). Rather that the theory of engagement potential as a function of summed values by identification, and various models of rational choice as calculated value to the individual, both contain a summation or calculation of value is a connection worth highlighting.

One influential figure in the study of Rational Choice was Herbert Simon. In his book Administrative Behavior (1947) Simon suggests several adjustments to Classical Rational Choice Theory in order to bring that field more in line with observable human behaviours. Of most interest to the current concern of this thesis is that he stresses that all decisions are mixtures of values and facts; that many decisions can ultimately be traced to an overarching socio-cultural value system. However values are not as easy to manage in an organisational decision making process (his focus) than more objective

information or ‘facts’. Another key point that Simon raises is that any decision must be made within a system of ‘bounded rationality’; that is a decision maker cannot know (and thus choose from) all possible options, nor can they evaluate those options perfectly, knowing the probabilities of the outcomes of the possible choices with no real precision. This combination of values and bounded rationality results in decisions being made on reinforced habit where a successful sequence of actions is repeated as long as it seems to apply to a new situation, or by ‘satisficing’ where decisions are made based on available information or stimuli suggesting the possibility of a successful enough outcome. So an organisation might be striving to maximise profits by producing goods. That the organisation exists to make profit is an undisputed value. The goods selected for producing profits may be selected based both on market conditions (fact) and what an agreeable good would be (value). This agreeability would be based on what the organisation has successfully produced before and what a socially acceptable profitable good should be. Thus the selection of goods is based on a mix facts and values. How the goods might be most efficiently produced is based on an increasing reliance on facts (allowing for values in the mix such as a happy, unexploited workforce say). So to use some very simple examples: producing arms in a peaceful country and selling them to foreign governments in order to perpetrate warfare overseas might be a very profitable enterprise (fact), but might be seen by some sections of society as morally corrupt (value). If this trade is made illegal the company might only have the knowledge to diversify in relatively specific ways such as into producing non-lethal versions of their existing products or to different but similar clients. Using a less extreme example at a lower level of corporate decision making: buying shoes to sell in a shop, the buyer needs to get the best product for the best price; they could source low priced goods (fact) from sources with less worker protection (value) than other sources who treat their workers well, but produce a more expensive pair of shoes. This buyer cannot know all possible

sources of shoes or the true working conditions in all the factories they might source their goods from (bounded rationality), so they source shoes at as low a price as they can while still reassuring themselves that the goods are being produced in factories that treat their workers with sufficient fairness (satisficing). Simon argues that these types of decision are performed in all organisations at every level of decision making.

How might we relate hierarchical values and facts, 'bounded rationality', and satisficing to individual engagement with videogames? It seems that when we are concerned with decisions relating to pure entertainment, values become more critical to the decision making process than facts. That one experience is likely to be more agreeable than another is a subjective evaluation with little objective evidence as to what game, book, film, country walk or whatever will be better than others. The limits of rationality in engagement in entertainment are even further restricted than even Simon holds for the behaviour of organisations. Essentially an entertainment choice is rational if the individual thinks it is rational and for no other reason. We could however consider satisficing as an alternative to Homans' evaluation criteria. If an individual encounters an experience they feel will be pleasing enough (because it conforms to their values) then there is a possibility than they will engage in it. They will not consciously or unconsciously weigh it up against all the other activities they could be engaged in, though they might have an idea of a few alternatives, and they will not have a clear idea about how well it will meet their need to be entertained before they start. It might be a similar experience to that they have engaged in in the past and they may hope, through habit, to gain pleasure from this new interaction.

If values are entirely subjective how do we account for them in the way people make decisions and behave in an entertainment consumption context? Carver and Sheier (2001) propose that there is little difference between values and goals with each being

expressible in the language of the other. They propose that all objectives, whether valueful or practical, be considered goals, but that we might consider that there is a hierarchy of goals of two different types. Superordinate "be" goals yielding subordinate "do" goals. "Be" goals are states of being. For an individual the goal at the top of the hierarchy might be a concept of an idealised self, under this level will be sub-values that might constitute the idealised self, possibly at the level of Rokeach's (1973) elemental human values (such as honesty or generosity say). These overarching values then yield subordinate values as we decompose the hierarchy, up to the point that a goal describes a course of action or a "do" goal; moving from 'why' to 'how'. At each level of the hierarchy feedback is compared to expected success and behaviour is adjusted accordingly. This shaping of behaviour against goals seems to present an alternative way of exploring choice, and again personal, identified values are considered to be the super-ordinate factor from which all other values and goals flow. We might suggest that Carver and Sheier's 'values' and 'goals' are similar to Simon's 'values' and 'facts' respectively. Placing self and the drive to achieve a satisfactory sense of self (whether individualistic or as part of a collective) at the top of this hierarchy apparently places these types of theories in a similar place to that of Maslow's Hierarchy of Needs (1954) but possibly the other way around. Maslow suggesting that basic needs (biological needs, shelter, procreation and such) must be met before 'higher order needs' (personal development, self-actualisation, and such) be pursued, where Carver and Sheier suggest that higher order needs decompose into lower order needs which are performed in support of the higher order needs. Although these two perspectives seem to say the same thing, if as Maslow suggests, basic needs must be met before satisfaction of higher order needs can be pursued it might be very difficult to imagine how a person might achieve such a mental state as Csikszentmihalyi's Flow (1990) where the individual might forget about subordinate needs, such as eating, in pursuit of some growth toward some superordinate

goal (say self-actualisation). Carver and Sheier's reframing of these need states as goals allow for this, but at the same time it is difficult to see where Maslow's subordinate 'needs' might be introduced into a hierarchy of "be" or "do" goals, unless there is also an overriding set of goals of the kind "Be Alive" "Do being alive by eating food when hungry." which suggests a need hierarchy like that of Maslow's. It seems though that when we are considering behaviour directed toward entertainment we might allow for occasions when a person may ignore some basic biological needs in order to pursue some valued goal, but in day to day behaviour the relationship between biological needs and high order personal/cultural/social values is much more complex.

So in terms of hedonic or entertainment pleasures such as videogame play, we might surmise that people make choices and act in a more value driven way than in a need driven way. However we might also suppose that values are evaluated in some semi-rational way, with individuals seeking activities which satisfice their value needs or goals, which are assessed according to both established habit and some sense of the likely outcomes of the choices, in terms of the possibility that value goals might be met.

The theory presented in this thesis has features in common with Rational Choice Theory in the ways suggested above, especially if we allow for the satisficing of choice and engagement via personal cultural values as goals. As will be explained in the relevant chapters below, players appear to take some interpretation of the cultural value of prescient features of a game and arrive at a tacit sense of overall value. One problem with such feature summation approaches is that the overall sense of value can influence and is influenced by the summed value of the features of the experience. So a player who does not like a particular kind of game (overall that kind of thing does not fit into their system of value goals) will criticise the experience at a sub-feature level. While another individual who feels that the sub-features they have encountered meet their

needs will have some sense that the overall experience does too. In other areas such as the interpretation of texts this problem has been called the Hermeneutic Circle (Heidegger 1962), where any interpretation of a text must account for the interaction between the whole text and salient parts of the text at the same time. The Hermeneutic Circle is not seen as an insurmountable problem, only that any analysis must account for both the interpretation and understanding of parts of the text and the sense of the meaning of the text as a whole. Similarly if we understand that an overall impression of the value of a game is both formed of and forms the impression of the value of the parts of a game then we do not have an inconsistency when we have an example of an individual who dislikes a particular experience and thus criticises it as being, say, too difficult to play, or having a boring narrative.

1.6.10. Biological pleasure

The previous sections seem to ignore the possibility that the reason people choose to engage in certain activities, either consciously or tacitly, is due to a system of possibly socially acquired (or cultural) values. However surely there are some pleasures which are universal. Perhaps the way people respond to pleasures and thus engage in entertaining activities is just as likely to be due to biological drives or instincts as it may be to do with learned patterns of behaviour or culture. It is this approach, to assume that biological drives are an equivalent cause to socio-cultural factors in determining the experience of pleasure in individuals, that has been taken by such as Tiger (1992) who argues that pleasures must be a complex set of cultural and physical principles, before breaking the concept of pleasure down into 4 overlapping constituent types: Physiopleasure (physical or sensory pleasure); Sociopleasure (pleasure of acting in a group); Psychopleasure (the pleasure of attainment and accomplishments); Ideopleasure (the pleasure in experiencing or creating concepts or ideas). Tiger argues that we are predisposed to pleasures of these kinds by virtue of our biology; that in any pleasurable activity we

could determine a set of predispositions which could be said to make that activity pleasurable. We are predisposed to enjoy sweet food, warmth, and orgasm (physiopleasure); the company of others and a sense of belonging (sociopleasure); the satisfaction from having done a good job, completing our goals (psychopleasure); and experiencing a work of art or learning new things, or creating works of art or creating new knowledge ourselves (ideopleasure). Using such a typology in the study of games is potentially not as straightforward as finding the pleasures and mapping them to motivations:

"Obviously, all practitioners of the arts that please the senses are to some degree committed to an aggressive understanding of sensory physiology and psychology. But painters, sculptors, and musicians need not always please – they may shock, revolt, trouble, abuse, irritate. They may shout or drum or stamp their feet at their audience. They may assault the audience's certainties and excite their fears and ridicule their deepest morality. The dramatist may unhinge their expectations of life by the suddenly plausible behaviour of outrageous or despicable characters.

But the chef, or the winemaker, or the confectioner – they must please. Otherwise, in any kind of open market they will not survive. The mouth is less tolerant than the brain or whichever organ of the body assesses politicians." (Tiger 1992)

So how do we unpack Tiger's pleasures and apply them to the domain at hand? Should we assume that choice and motivation for videogame play are based on cultural mores as other arts, or is there a biological drive to engage as there is a biological drive to consume sweet food? It seems that if we consider the differences in even the preference for different flavours of foods in the cultures of diverse societies that the dependant variable which accounts for much of the differences observed is cultural rather than genetic, nurture rather than nature. Granted we may well have underlying

predispositions to learn and engage with other people, but why someone chooses to eat Surströmming (Rotten canned fish, a delicacy in Sweden) or Kopi Luwak (Coffee that has passed through the digestive tract of a cat like animal, the Luwak, before being ground and made into a drink in the usual manner) cannot be explained by their instinct to seek out nutritious food alone. Indeed different cultures involve the consumption of different staples. One cultures' source of ready protein is to another a disgusting slimy or crawly thing, while another's source of easily stored source of calories is otherwise a unpalatable mouldy thing fit only for disposal. Any attempt to explain preference for anything other than the basest of needs quickly comes upon such counter examples.

Take as an example Tiger's assertion: "There are three other forms of obvious pleasure – sports, popular music, and dance, and television and film – that pleasantly animate many people in many communities. I have not discussed them adequately because they do not need it.". From this quote we might assume that these kinds of "popular culture" are universally pleasurable, and his comments later in The Pursuit of Pleasure (Tiger 1992) concerning the universal appeal of American popular culture suggest that this is his perspective. However, seen through the lens of videogames again any assertion to universality of popular culture, led by North American cultural exports must be questioned, especially if we look at the date Tiger published. In the early 90s there were other powerhouses in the production and publication of computer and videogames other than the US. Japan was especially influential at this time (the era know as the fourth generation in terms of home consoles), possibly more so than the US. The majority of gaming hardware was being designed and produced in Japan (by such companies as Sega, Nintendo, SNK, and NEC), and consequently a large proportion of the games were produced by Japanese companies and many of them were translated into other languages, becoming enormously successful properties worldwide. While American

companies were making successful games for home computers, consoles, and the arcade, these products were far from dominant on the global market, or even the domestic market. Thus Tiger's argument that American Popular culture is probably more successful worldwide due to the US itself being a homogeneous, immigrant population and thus capable of reflecting the global cultures back on themselves seems like a logical elaboration too far, as Japan is not a homogeneous people but historically a distinctly introspective and heterogeneous group relative to that of the US.

It is interesting that in supporting his thesis on popular culture Tiger retreats from an integrated set of pleasures encompassing physical and psychological factors and places the purported success of American popular culture in the cultural identity of the peoples of the US and the identification with US peoples' expression of that identity by other, international audiences. Suggesting that popular culture is not as self-evident a pleasure to explain away as Tiger suggests it is. Indeed if we look at his example of sports, there are few universally appreciated sports. A perfect example is Association Football (Soccer) which is popular in many parts of the world is not very popular in North America where a different code of Football, American Football is far more popular. This difference in patterns of appreciation of sports around the world suggests that the appreciation of sports is at least in part socio-cultural.

1.6.11. Design implications and practical applications

Some of the concepts mentioned thus far in this review of relevant literature have been invoked because they have formed the theoretical backdrop for attempts to explain how people engage with products and how this knowledge might be used to produce better products. While the work of McCarthy and Wright (2004) was reviewed individually above, due to the many connections between that work and that of this thesis, a number

of other works from the same general field (human factors, usability, product design, or user experience) will be summarised here.

The work of Patrick Jordan (1997, 2000, 2002) is quite influential in this area. While McCarthy and Wright (2004) could possibly be criticised as being quite theoretical, where the implications for design practice are fairly abstract (that designers should be aware of the experiential nature of the way users will engage with the products they design), Jordan attempts to on the one hand create practical procedures for design practice (2000) and on the other to create experimentally demonstrated empirical theories (1997, 2002). In terms of the theoretical position Jordan has been exploring the possible link between the personalities of individuals and the attributed personalities of products. That is, is it possible to use the same words to describe properties of the personalities of people to designed products? If we can ascribe personalities, or personality like quality perceptions to products, what is the relationship between those qualities and the felt personality of the perceiving individual? Here there is some relationship with the theory presented in this thesis, in that I propose that (videogame) products are evaluated according to the perception of what they represent culturally, which if Jordan is right might be an evaluation of the personality of the product.

In Jordan's first published investigation of product personality (Products as Personalities 1997) he attempts to repurpose the Myers-Briggs (1962) development of Jung's (1921) multi-dimensional theories of personality to assign personality values to products. In this study Jordan attempts to show that there is a correlation between the imputed personalities of products, perceived aesthetic quality, and the personality of the imputing viewers. The later work (The Personalities of Products, 2002) is intended to be an attempt to take the Product Personality Assignment developed in the previous work away from the technical terminology of psychoanalysis and, with the help of designers, to

create a set of more meaningful (to designers) terms. Taken in combination these 2 studies can be seen as an attempt to evaluate the hypothesis that if the personality of the product is similar to the felt personality of the perceiver (and product personality assigner) then the overall experience that perceiver has with the product is more likely to be felt to be aesthetically pleasing than if the product is felt to have a personality which is at odds with the perceiving individual's. That these studies have achieved variable results relative to this hypothesis seems unsurprising from an a priori perspective. If we, for example, consider the aesthetics of a 'pure' aesthetic object, such as a painting and the personalities it expresses. If we agree the dark, raw, disturbing paintings of Francis Bacon offer a desirable aesthetic experience, we might ask if the viewer who enjoys this style necessarily needs to have a dark, disturbing personality. Even if we consider practical products, which is closer to the intention of Jordan, even if a person felt that they were violent and unstable would we really expect them to put a violent, unstable electric shaver near their face?

In essence it is in the design practice, not in the statistical correlations that Jordan's approach seems most useful then. In asking what the personality of the designed product might be said to be, the designer might have another instrument with which to reason about how best to design and present a project. Is it appropriate to consider to what degree a hair dryer be kind or unkind? What about excessive or moderate? Serious-minded or light-hearted? Violent or gentle? What if we were designing a gun instead? What about a cement mixer? That is not to say that the user of a cement mixer would need to be fairly moderate, quite serious-minded, and a bit violent, just that they might expect the device itself to present these qualities. This process of breaking a problem down by asking probing questions about the nature of the product and the relationship it has with the individual is a feature of much of Jordan's work. In Designing

Pleasurable Products (2000) one approach he takes is to ask if Tiger's four pleasures (see the above section which deals with biological pleasure) could be an appropriate lens for reasoning about how a design might be perceived.

This use of a such pleasure based approach is a departure from the usual values based approach often employed in marketing (i.e. Jenkinson 1994) and usability focussed design, but Jordon does so in a way that would be familiar to those that followed Jenkinson, in that Jordan's approach is to create personae intended to illustrate the wants and needs of coherent groups of consumers as individuals. These individuals, in Jordan's case have sets of pleasures they more or less identify with, that products can be designed to support. To Jordan this is a holistic approach to design; to take demographic data about individuals and reason about what these data might imply in terms of desired pleasures (and to some extent needs), it may be possible to use a schema of pleasures, such as Tiger's, to map out what properties the product will need to have in order for that individual (and by extension other individuals, beyond that semi-fictional archetype) to derive pleasure from a product, and thus engage with it. It seems that many of the pleasure positions proposed in this way might be said to be said to represent both a pleasure property of the product and a personality of the product, and any engagement with that product is often contingent on the personalised socio-cultural value system of the end-user or customer and their reception of the posited pleasures and apparent personality of the product as socio-cultural offerings. To take Jordan's specific example the design of a new camera should consider the target user and reason about the product benefits which would support desired pleasures for the target group (in this case young women). So a camera for young women should offer - the physio-pleasure benefits of feeling good in the hand; easy to carry around; fits well against the face; and usable with long, feminine fingernails - while offering the socio-pleasure benefits of

conferring an impression of high socio-economic status to the owner; conferring an impression of high cultural status to the owner (see Bourdieu for a differentiation between social, economic, and cultural values); and the benefits of taking photographs quickly and without disturbing others - similarly the benefits in terms of psycho-pleasures might be again that the user should be able to take photographs quickly; and that the device should be easy to operate at the first attempt – in terms of idea-pleasures Jordan suggests that the camera should be aesthetically pleasing; that it should reflect the user's sense of femininity; and that it should be environmentally 'safe'. Whether these benefits map neatly to Tiger's four pleasures is less important to Jordan than they are a means of decomposing the problem to discernible design features. With a set of such agreed features a designer or design team would be able to work towards these ends as design and evaluation targets. That is a designer can take each of these benefit statements and ask what the implications are for the design of a camera. So they might reason that young women seem to buy more products with rounded organic forms than sharp angular forms and so a softer aesthetic would be desirable. The designer might also reason that in order to suggest high socio-economic status (without being flashy or vulgar) the camera should be constructed from 'premium' materials such as metal and leather rather than plastics, or it might edge toward a modern form or layout rather than an 'old fashioned' layout, and so on.

So Jordan presents us with some familiar analytical tools (personae and product specifications) and provides us with a possible way of using these analytical tools in a practical way that also includes senses of hedonic or pleasurable experiences. It seems though that where purely pleasurable, hedonic, or leisure experiences are concerned (that is experiences where a traditional, 'task driven', or goals and means description does not fit well) we are left with a sense of how socio-cultural values are embodied by

individuals as an enculturated personality and how the features of products either conform to or support those values and are then adopted by the individual, or do not and are thus rejected by the individual. In this sense Jordan's theoretical position is close to both that of McCarthy and Wright (2004) and that of this current thesis, but with a much stronger set of practical procedures to how this relationship can be engineered in a design process.

While Jordan's work focuses on how theoretical concepts might inform a design practice which considers utility and pleasure equally, Marc Hassenzahl's work (e.g. Hassenzahl 2001; Hassenzahl 2003; and Hassenzahl et al. 2008) focuses on the ways the various influencing factors might be evaluated in support of design practice.

Hassenzahl's approach is to both attempt to prove and to demonstrate the utility of considering two distinct but interacting aspects of the quality of the experience of use of products, or a product's appealingness (Hassenzahl 2001). These qualities are a sense of pragmatic quality, that the product does what it is supposed to in a way that can be operated or used by the individual (Ergonomic Quality – EQ, pragmatic quality, or usability); and a sense of that the product is able to support a positive emotional response in the user (Hedonic Quality – HQ, or aesthetics). Hassenzahl shows that the reception of these qualities is contingent on the context and the user's state of mind. So while EQ and HQ both contribute to the overall assessment of the quality of the product (and thus the product's appeal), to what extent EQ and HQ contribute to that sense of quality is affected by what the user wants from the product at that time. Not just in how they intend to use it, but in their particular focus at the time of the interaction, or 'regulatory focus' (Hassenzahl et al. 2008). The individual might be trying to get something done with the product ('do'ing in the sense of Carver and Sheier's, 2001 'do' goals) and will thus be focussed on the 'prevention' of expending effort to achieve those

goals; or the individual might be focussed on deriving pleasure from the product, growing into or striving toward new states of 'be'ing which Hassenzahl refers to as 'promotion'. A user's engagement with a product is never the same then, as in each context where the user uses the product they will be focussed on different aspects of what the product offers. The experimental example given in Hassenzahl (2008) is of a music playback software product, where there is a 'function' (to play music files) and in some versions an 'aesthetic' ('enhanced' sound and graphics functions). Interestingly while the subjects who were in a promotion focus showed little strong preference for either version of the software, the subjects who were in a prevention focus, and were thus pragmatically trying to achieve a set of tasks with the program, showed a decrease in satisfaction with the 'hedonic' version of the program relative to the 'pragmatic' version.

While Hassenzahl's observations and evaluative methods are interesting in general and push the evaluation of design in human-computer interaction forward considerably, from a field which accounts for hedonic qualities as a secondary concern to one where there is an understanding that the relationship between pragmatic qualities and hedonic qualities is potentially more complex than a simple hierarchy, with pragmatic qualities needing to be supported in order to allow for hedonic qualities to be supported by this pragmatic foundation. As the evaluation of a product is influenced by both the context of use and the approach taken by the user Hassenzahl advocates that these factors be taken into account in evaluation.

Most interesting of Hassenzahl's theories, for our purposes, is that he claims that users can adopt a prevention focus or promotion focus for any activity or product including videogames. Initially this assertion seems ill placed, in that surely there can be no pragmatic qualities which a prevention focussed individual might seek in a game.

However if we look at the reasons given for rejecting games in general, or specific games, they have a certain 'prevention' property to them. For example one participant (DA) in the research reported in this thesis used fairly pragmatic reasoning for his rejection of games. He reasoned that games could not support his extrinsic needs for physical, intellectual, and social activity, as well as other potential sources of such stimulation might. At some point in the past though, he had tried a game and became absorbed by it. If we accept the regulatory focus principle proposed by Hassenzahl it might be possible that DA was more promotion focussed in this period where he engaged in play than he might normally be?

Perhaps in order to understand Hassenzahl's approach and how we might understand the way players (with a suitable focus) might engage with videogames we need an impression of what fun, pleasurable, appealing or hedonic properties or qualities of a product are. In this respect Hassenzahl suggests that a user forms an impression of the 'chararcter' of a product (Hassenzahl 2003), and this character could be described by either pragmatic or hedonic attributes. In terms of hedonic attributes Hassenzahl lists three: **Stimulation** (novel, interesting, or exciting features especially where that an opportunity to personal growth or fulfuillment); **Identification** (opportunity for self expression; or the expression of personal values and identity via the way others perceive and respond to the individual's ownership or use of the product); and **Evocation** (presenting 'past events, relationships, or thoughts' which are valued by the individual, particularly in nostalgia inducing ways). In a sense these three hedonic attributes, especially where we are concerned with the 'character' of a product has many features in common with Jordan's sense of a product personality (Jordan 2002), and the way they encompass broad meanings and learned experiences beyond the experience with the specific product shows common ground with McCarthy and Wright's (2004) exploration of

the broad experiential view of product use. It may also be possible to relate each of these attributes to a sense that an individual in responding to them is potentially doing so as an individual personality with fairly stable enculturated values who is applying those values within a specific context. So we could say that the way in which people differ in terms of the way they will respond to opportunities for growth and stimulation will be in terms of who they feel they are and whether the product presents an opportunity to support their personal, unstated, culturally relevant goals; while the way they differ in terms of how they choose to express themselves through the products they will use will be formed by how they feel they should be presenting themselves in accordance with who they feel that they are (if we use Cooley's 1902 Looking Glass Self concept, say); and the difference in which products have the potential to evoke positive feelings would clearly be contingent on what the individual has learned to respond to positively, which in the literal sense is a personal culture where these products have been adopted as symbols with positive personal and social connotations. As such the theory presented in this thesis could be said to be consistent with Hassenzahl's theory, but presented at a higher level of abstraction.

Focussing on broad goals or 'values' is framed by Gilbert Cockton, in a similar way to Friedman (1996), as the next phase in the evolution of how we conceive of designing for Human-Computer interaction (Cockton 2004a and 2004b). He argues that this field has passed through 3 earlier phases: system centred design, user centred design, and context centred design, but needs to move toward value centred design where while the system requirements and limitations are accounted for and communicated; the user's physical and cognitive requirements are accounted for; and the context(s) of use has been accounted for, the value each product represents to all stakeholders must be included in any design decisions. Although he explicitly avoids defining value at this

stage (Cockton 2004a pp.157) he does present an example to illustrate his points. It seems that in this example Cockton is using 'value' to describe what otherwise might be called needs, requirements, objective benefits, and satisfactions rather than exclusively sociological values such as those invoked by Friedman. As such Cockton seems to be suggesting that we account for a broad range of implicit requirements when designing software products. So in his example of a website for a van hire company: The management and other financial stakeholders hope that the site will help the company be more profitable and promote the brand image; consumers want the website to help them save time and money by being a cheaper and more convenient way to book a van; while van hire operations staff will want a more efficient process of releasing and receiving vans from consumers. These values are probably not all of the same kind discussed elsewhere in this thesis, seeming to be what would be traditionally known as requirements. Comparing these design values with the decision factors proposed by Simon (1947) we could suggest that they are a mix of facts (financial costs) and values (promoting the brand), with a bias toward facts. With such an example it is difficult to see how one might account for the values of pure entertainment products. If, for many stakeholders there are no 'fact' level returns only costs, how do we ensure that there is sufficient 'value' to account for the costs. In later work Cockton (2008) deliberately shifts to discussing 'worth' to indicate that there will be positive and negative values. In many ways Cockton's work has parallels with the work of this thesis. There is a common focus on 'value' and 'worth' to resolve a sense of the quality of a product; however the obvious difference is where Cockton has assumed that values are emergent or self evident and then attempted to work such values into design practice my work (focussing as it does on only entertaining products and their reception) has tried to derive a source of value for players devoid of design methods. This difference is made clear where Cockton states: "*...the most challenging game interactions can be very unpleasant and*

frustrating, but completing the last mission at veteran level after a week's struggle can be immensely satisfying. Value here lies in achievement – this is so with most work and many leisure applications of computing." (Cockton 2008). Here I would ask whether achievement alone is a value. If I achieved any random thing at all, would I value it? If I set out to create a three metre high stack of beer cans on my own in a park, would I value the achievement if successful? Would my mum value her 'achievement' if I asked her to replicate my awesome feat? Surely the value is, to a large extent, in the thing achieved and the means of achieving it. I propose that the activity and the result must match the users sense of what an individual like themselves would find valuable, which they learn from their socio-cultural background, so in most contexts I imagine that most would consider stacking beer cans to be a worthless activity with a worthless outcome, no matter what height I manage to achieve to my stack. If we ignore what Cockton has to say about specific examples of value and use a conception of value such as that presented in this thesis (cultural value in identification) then Cockton's ideas about how we might develop a Worth Centred Design (WCD) practice, through mapping networks of worth and considering them alongside existing design practices, could well lead us to better design process than simply trying to get a feel for how values might implicitly sum to create a net worth.

1.6.12. Juul's 'Casual Revolution'

An interesting exploration of the consequences of different design approaches to videogames has been performed by Jesper Juul in A Casual Revolution (2010). In his book Juul explores the differences between two notional types of videogame experience which have become known in the industry as 'casual' and 'hardcore'. The industry stereotype is that 'hardcore' players appreciate the 'traditional' videogame features of a

dark or negative fictional representation (described eloquently by Juul as the kind of experience you wouldn't like to encounter while walking down the street, such as armed conflict or intense criminal activity), a requirement for a great deal of knowledge of the conventions of videogames, an extensive session by session time commitment, and a high degree of difficulty. The supposedly opposite type of player, the 'casual', seek the opposite in positive fictions (things you might enjoy if you encountered them in the real world, like a game of tennis), little required knowledge of the conventions of videogames, a low minimum time investment, and little challenge. Juul's exploration of these stereotypes and the games supposedly designed to target them suggests that they are essentially fictions with no such easy separation between ‘hardcore’ and ‘casual’ players or games. What Juul does highlight however is that, in supporting alternative ways of playing (the casual market), the industry has found that those players who did not identify with the implicit core cultural values of players suggested by the 'hardcore' stereotype constitute a large and thus lucrative market. Combining short minimum interaction time, a difficulty that is contingent on the effort the player is prepared to put in, neutral themes, and increasingly mimetic interfaces lowers the investment required in order for many players to gain the returns they seek. In this respect Juul's findings can be integrated into the findings of this research with ease. However we do need to look at the 'returns'. Labelling 'casual' and 'hardcore' players (and thence the games they choose to play) by the investments they are prepared to make, while not making explicit the returns they are seeking seems incomplete. If we were to use a sense of investment/return to interpret Juul's work, while he does make apparent that returns are occasionally considered, such as the social interaction returns in playing a computer mediated quiz game or the light physical exercise in playing a mimetic sports game, many of the reasons others wholly reject games in their current form are undisclosed. My research into non-players, which helped to formulate the value seeking through

identification hypothesis, suggests that there are players for whom current gameplay offerings are the antithesis of who they see themselves as culturally. For some playing a mimetic sports game is just as worthless as playing a science fiction based first person shooter. These individuals (such as OA, DA, and DC) want to engage in activities with the same societal designation of cultural worth as reading a respected novel or watching a critically acclaimed play. This sense of 'high culture' seems to be something that prevents many from playing games. While a film of a certain type might engage, there is a perception that there are few equivalents in videogames, or even that such equivalents are impossible in a game (see Roger Ebert's famous denouncements of video games as art as an example of this position e.g. Evert 2010a and Ebert 2010b). In other senses that 'casual' vs 'hardcore' market split is entirely artificial as there have been games with many of the features suggested in the 'casual revolution' for many years. Mimetic interfaces exist in amusement arcades, short minimum interactions are common in 'twitch' games, positive fictions abound in many genres championed by the 'hardcore' (see for example the games that Edge magazine, a notoriously 'hardcore' publication, has awarded a score of 10/10 in their review ratings, such as those designed by Shigeru Miyamoto for Nintendo including titles in the Zelda and Mario series), and some games have been criticised for their ease while still being praised for every other aspect of their design. Thus it seems that the designations 'hardcore' and 'casual' have as much empirical validity as 'twitch' (a type of game where the principal challenge relies on testing the player's reactions) or 'art' (a game which emphasises artistic expression over 'fun' or the traditional representations and challenge structures found in many games) games. These arbitrary designations of broad 'genre' come from the player's particular sense of what they want from a game, hence what semiotic meanings they ascribe to a game. For example, the 'art' game Braid (Number None Inc. 2008) can be described as a 'platform' 'puzzle' game which applies a distinctive visual style and thoughtful back story,

which leaves us the question of what is a player experiencing, a work of art, a Mario style platform game, or a time based puzzle game? These designations are arbitrary when we are discussing player experience, as the player might experience all of these 'genres' or only a selection depending on what they bring to the experience in terms of their personal preference for play derived from their greater cultural sense.

Comparing Juul's findings with those presented in this thesis suggests that a detailed analysis of arbitrary industry labels for certain groups of experiences with some points of similarity, provides some insights into the general engagements of players. However the focus on these loose classifications seems to limit the insights gained.

1.6.13. Is studying gameplaying useful?

So these meanings are subjective. In being subjective should we take a deconstructive (after Derrida (1998)) stance and declare all meaning potentially expressed as irreducible? If we take the meanings and values expressed by an experiencing and interpreting individual, we do not need to reject a reduction in meaning. We can reduce the individual's sense of homogeneous meaning of the whole experience down to salient features expressed as heterogeneous values and meanings, in a similar manner to that employed in Heidegger’s Hermeneutic Circle (where the interpretation of the whole of a text is conditional on the interpretation of its parts and vice versa). These features are decided by the experiencing individual and aggregate to form the overall sense of value and meaning. How we determine these values in a useful way can be achieved heterophenomenologically (Dennett 2003). That is we know that individuals are not entirely dissimilar in terms of their intrinsic capacities and that they are not utterly dissimilar in terms of their socialisation and hence they can be said to have related and somewhat generalisable psychology and culture, so we can make broad predictions about what meanings they may make and what values they may hold.

One tension which we might take from the literature (Juul 2010) is that the study of gameplay experiences requires there to be games to be played, and that there are games requires players to play them. So is the most important question what experiences games are designed to provide, or what experiences players have with games?

1.7. Summary of approach

Taking the position that any theory should represent perceptible phenomena and thus have some predictive power in the domain it represents, a decision should be made as to if a theory and thus predictive hypotheses should be analytically selected a priori and validated or empirically derived a posteriori from the domain. In the first case we would need to be able to find, analyse, and select from a range of acceptable theories, and resolve these theories into at least one testable hypothesis of the type which concerns us. In the second case we would need a clearly structured methodology in order to construct a useful theory from an unordered chaotic domain. Both approaches are potentially difficult, but as at the time of initiating this project there were few theories which dealt with the domain directly from which to analytically select, the decision was made to derive a theory directly from the domain. It was felt that any attempt to apply only loosely associated theoretical constructs from other fields and those demonstrated with restricted studies on sub-domains would have been less useful than approaching the domain in some structured way directly.

A full discussion of the approach taken is provided in the relevant Methodology section below, but simply put, an interpretation of the Grounded Theory (GT) Methodology was selected. Grounded Theory methodology (Glaser & A. Strauss 1967) is presented as an inductive methodology which if correctly applied should generate a theory from the

domain of research rather than from a priori conceptions of the salient features of the domain. Using certain interpretations of the methodology (as there are several) the final product could be a single hypothesis to which all the other factors and features of the domain are related and thus this 'core' hypothesis potentially accounts for much of the variation in the domain. That GT could potentially produce a theory in the form of a single hypothesis rather than a narrative account or multivariate model is the principal reason for selecting it over other qualitative methods.

I should also point out at this point that the final product of this research is expected to be a qualitative hypothesis relating to the playing of videogames. That is not to say that quantitative data cannot be considered in order to construct the theory, but that the theory itself will not be of a quantitative nature nor will it necessarily be statistically 'verified'.

As will be discussed later in this thesis, selecting an interpretation of GT was not straight forward, but became an approximation of Glaser's (1978) Classic Grounded Theory (or CGT). That CGT stresses a single key hypothesis over broad descriptive models is the key motivating feature for pursuing this methodological approach. The following section will discuss the rationale for the selection of the CGT methodology relative to other potential methodologies, and the particular interpretation of GT implemented. It must be pointed out that while they share a jargon, not all methodologies which are called GT are the same, and it was only by attempting to understand the methodology by doing it (according to often seemingly vague advice from various sources) did the advice presented by Glaser eventually make the most sense. For example it seems uncommon for users of many interpretations of GT to report having performed a theoretical sort prior to writing, whereas the sort was critical in producing this thesis.

2. Methodology

This chapter will explain which methodology was used, why this methodology was selected, and how this methodology was interpreted and implemented. The methodology of Grounded Theory is not an experimental method, but strives to be empirical. Interpretations of it have been used widely, but there is disagreement as to what it must necessarily consist of (Glaser 1992). As such this methodology section is supplemented by chapters relating to the practical application of Classic Grounded Theory which appear in the final 'Summaries and conclusions' section of this thesis.

2.1. Rationale for selection

As the intention of this research was to explore the phenomenon of peoples' engagement with videogame play, with the ultimate aim of developing a new theory regarding the main factors or parameters of this phenomenon or these phenomena, a method or methodology was required which could generate theory rather than validate existing theory.

This focus on the production of domain relevant theory rather than the application of existing theories related to the domain requires some analysis. In order to establish why this stance has been taken we need to explore what the purpose of the project might be, and in order to explore the purpose or objective of the project we need to understand what kind of knowledge or theory we are attempting to generate and what implications that has on how we go about creating it.

If we are interested in human players and their engagements with something then we are evidently working within the realm of social science (whether that be Psychology, Sociology, Anthropology or similar), and the epistemological basis of the social sciences

has been extensively debated for centuries. The reader might note the many references to empirical work in this thesis, which gives an explicit indication to the epistemology of the research undertaken. That is the main concern is to generate a sense of videogame play with some demonstrable basis in domain specific data. Assuming an empirical stance (rather than a deductive or critical stance) could represent a wealth of different approaches and perspectives. We could deduce a theoretical position and then attempt to gather data to verify the truth of that position experimentally; we could gather data and then attempt to extract interesting features of that data statistically; we could gather data and then inductively create a theory about how parts of the data relate; or we could reframe data about the domain into a narrative highlighting salient aspects of the domain. Each of these approaches are not mutually exclusive and depend in part on the state of the existing knowledge about a domain and the particular answers sought. For example a modern natural science which might be said to be wholly empirical or 'hard', such as Physics, will often verify deduced theories experimentally, attempting to create a state of knowledge about the object of study which is more 'true' than the state of knowledge that existed before, often by means of reducing the complexity of a problem to simpler mechanisms which account for observed phenomena. Perhaps Physics can achieve this because there are agreed or legitimated axioms relating to the physical world from which it is possible to deduce refinements to the theoretical position of Physics; these refinements are often in a state which will yield straightforward hypotheses which can be clearly verified, probably experimentally. An example of a discipline for which such an approach would be impossible might be Anthropology. An anthropologist has few axiomatic agreements to work with as there currently appears to be few customs and structures which are universal to all human cultures and societies and hence a real or objective universal truth is very difficult to deduce from prior work. As such a major focus for Anthropology is to narratively describe, with some recourse to

other descriptions, the nature of discreet groups of people. Experimental verification of such descriptions is often not attempted, as the complexity and fluidity of human groups would make such a verification of the produced descriptions exceedingly difficult at best, but more often than not meaningless. Other domains fit somewhere in the middle, with varying degrees of established knowledge from which to deduce theories and varying degrees of possibilities for verification. In many of the social sciences (i.e. Psychology) the extent to which an objective truth is sought experimentally versus the extent to which the concerns of the domain are narratively reframed, depend on the problem being tackled; the epistemological bias of the investigator; and the expected utility of the resultant answer. So a Social Psychologist will have different objectives from a Clinical Psychologist and hence will use different tools and will seek a different end result.

The question of end results is at stake here. Is it important that the end result is a reproducible fact about reality, objectively realised and true independent of the subjective position of the investigators that originate and use it; or is it important that a rich account of the subjective experiences and interpretations of, and those that exist within, the domain, be received and interpreted by an interested audience? In both cases we might legitimately question the utility of each result. These questions are in constant flux; it is not strictly true that all scientific knowledge is intended to represent a verifiable, reproducible, objective truth from which other theoretical scientists, applied scientists, and practitioners in various domains can draw to enhance the work that they do. For example a recent review of multiverse theories in Physics and Cosmology by George F. R. Ellis, one of Stephen Hawking's co-authors, and a respected Cosmologist and Mathematician in his own right (Ellis 2011), reveals some interesting epistemological biases at the fringes of knowledge in these fields. While Ellis is critical in his evaluation of

various theories of what might lie beyond the cosmic horizon (the maximum extent of the observable universe), a few of his comments highlight a science which would fail most tests of empiricism, as surely any theory about things which are literally unobservable must. This use of supposition is surely surprisingly antithetical for such a 'hard' natural science such as physics? If 'soft' sciences are enamoured with emulating the supposed focus on observable, objective facts of 'hard' science, how does one deal with the reifications of cosmology as an example? Can 'soft' sciences operate in a space of unverifiable theory just as hard sciences seem to do on occasion? Why does it matter?

Essentially the question is: what purpose does a theory have? Some would argue that a scientific theory represents an attempt at summarising or modelling the real, natural, objective world (e.g. McMullin 1984). That no theory is completely or absolutely 'true' is more often apparent from alternative conceptions of scientific theory and truth. A sense of consensus and acceptable inference may be held to be the deciding factor in whether a theory is accepted as workable or not. The question then becomes how does one arrive at this consensus; a consensus that grants the ability to infer a sufficient degree of confidence in the findings in order to inform further research or practice? One particular approach to such an inference which is worth mentioning (as it will be utilised elsewhere in this thesis) is that of Pragmatics. Pragmatics, after Charles Sanders Pierce, may be described as a philosophical position which connects theory and practice. That is does belief in a thing (in the absence of real doubt) allow us to act in a useful or meaningful way? This mode of thought allows for deductive and abductive lines of enquiry, but is not anti-realist, in that we would assume that there is a real world, much of which is nomologically governed by law like processes, but how much of that world is objectively 'discoverable' by inductive means is also discovered in the act of enquiry.

Pierce argued for three main phases of inquiry: retroductive; deductive; and inductive (Pierce 1908). These phases are naturally applied in all successful effots to fix scientific belief. Initially a surprising fact is noted, from which ideas are formed about how it might be explained (retroduction). This period of argument, attempting to find the best explanation, is followed by a phase of expressing that argument as hypotheses and thence demonstrating or illustrating the nature of the hypotheses (deduction). Finally, in order for a hypothesis to be believed, the degree of fit it has with experience must be demonstrated, possibly by gradual increments, by a process of induction. So where a physicist observes a surprising phenomenon (say accelerating expansion at some period in the life of the universe), there will be a process of abduction or retroduction where a researcher attempts to come up with some means of accounting for or explaining the surprising fact in light of other knowledge (say that there must be some energy at work which we haven't observed yet). Taking this new idea which seems to account for the observed phenomena the researcher will deductively break the argument down to deductive hypotheses (say that if there were some energy we hadn't directly accounted for yet, we might find its effects in other places than a surprisingly expanding universe), which can then be inductively compared with empirical data (in our example we would expect some effort be put into seeking astronomical observations or experimental data which are empirically in accord or in contravention to the deduced hypotheses). If the experimental data is 'surprising' then presumably the sequence of phases starts again, otherwise the hypotheses become more convincing and will be accepted as true by more and more people.

Such a notional process admits that experimental science is not a simple process of inductively testing hypotheses, but rather that abductive and deductive processes are involved to a substantial degree. So we have a situation where scientific theories are not

strictly inductively based on data, but are abductively formulated and deductively reasoned and as such are not necessarily objectively, demonstrably 'real' or definitively true. However they are sufficiently useful in promoting understanding and have been, in part, sufficiently demonstrated as reasonable enough that people can believe in them.

Admittedly such epistemological processes are a subject of constant debate within the Philosophy of Science, but it seems that there is a consensus that pure induction is impossible, as the human propensity to introduce bias in observation is extremely difficult to avoid, and pure deduction is undesirable, as a theory without supporting evidence does not easily engender belief in an audience (who might have experiential evidence or other biases to the contrary).

This focus of this current thesis on the abductive generation of theory rather than inductive validation of existing theory or even deductive resolving theory from related domains then was partly due to a dearth of empirical work relating to the overall play experience at the time of initiating the research project. Of the empirically derived theories that did exist (i.e. (Malone 1981; and Fabricatore et al. 2002; and Kline & Arlidge 2003) all had restricted the scope of their studies to address either a subset of player types or certain game types or genres of game. For example Malone focused on the experiences of children playing games in a classroom setting, as his interest was in the pedagogic potential of this new medium. As such it was felt that while there was a surprising phenomenon of videogame play (and the occasional deep engagement observed in players) that it had not yet been sufficiently accounted for in a general sense in the pre-existing work.

The desire to produce a 'general' theory should be explored here. It could be argued that in a sense all scientific theories are a type of generalisation. When Newton proposed his law of universal gravitation he did not intend to describe the behaviour of some objects

he observed, rather he hoped to describe the relative behaviour of all massive objects relative to one-another. He was aiming for a generalisation about objects with mass. We might argue that the physical mechanisms studied by Physicists are obviously law like and as such general laws are possible or desirable in that field (we could argue that they are in fact much more believable) whereas anything which deals with the incredibly variable behaviours of human beings is much less law like and is thus less amenable to generalisation. True, but a century or two of different branches of the human sciences (psychology, sociology, anthropology) have shown that people often behave and arrange themselves in consistent ways. Without insisting that an ultimate cause be found in order to establish these consistencies (Newton knew nothing of space-time or any other subsequent theory about the causal nature of gravitation, but could accurately describe and predict the behaviours of massive objects), and becoming prematurely reductionist, how can we establish behavioural principles? One approach is to attempt to show that there is a statistically significant pattern in a population of people. This approach is commonly used in quantitative research in the social sciences. To take a hypothesised effect and to statistically evaluate the effect it has in a population. Another approach is to study what the population is doing, and look at what patterns there are in the cases studied. This latter qualitative approach has been contrasted with quantitative methods in terms of which methods allow us to infer a generalisable effect by such as Gobo (2004). In order to get a true statistical generalisation we need to make sure certain conditions are met. We need to make sure that the sample the generalisation was drawn from is statistically representative, and that the statistics used are suitable for the sample and the type of data. Gobo argues that the first condition is usually impossible to define in advance of the collection of data. While it might be possible to obtain demographic distributions (age, gender, or net economic worth say), it might be much more difficult to get an accurate measure of the distribution of a behaviour in a

population, until after a study is started. Even if such a distribution is available, obtaining a sample of just that distribution and of sufficient size to be amenable to statistical instruments is often extremely difficult. So, quite often, statistical generalisations can only be said to be generalisable to the samples they obtain. For example patterns of non-response or difficulty in obtaining individuals with specific characteristics for use in a statistical method may map precisely to critical variables. This may be due to the lack of demographic data on the greater population relative to the subject of study. For example where would one find data about the distribution of specific unselfish behaviour (Gobo 2004)? So in order for a statistical syllogism of the form X proportion of the greater population behave unselfishly in Y context to be valid, the sample of individuals in the context displaying a range of responses must be representative, which may be impossible.

If we look at a model of epistemology such as Pierce's, we might argue that applying a statistical method in exploring a distribution of cases sits at a late phase in fixing knowledge. If we are exploring the critical variables of a phenomenon, determining these variables and how we might demonstrate their distribution in a population is likely to be impossible until those criteria have been retroductively and deductively formulated. As pointed out by Gobo and hinted at in the Cosmology example above, in many disciplines statistical methods are rarely used. In a wealth of disciplines the inductive experimental method is case based (some disciplines such as palaeontology use a case based mode of knowledge acquisition almost exclusively, using an abductive comparison of cases rather than any experiments or statistical proofs), for example if a physicist can show a case of particles behaving in a specific way, that in itself is interesting and capable of spawning new theory.

So with respect to the phenomenon of videogame play, the tendency to segment the problem seems premature without a theory relating to where the lines should be drawn, and indeed what the fundamental issues and thus case variables are in the first place. With this in mind several candidate techniques which promised to create theories with broad coverage and delimiting potential were considered. It was felt that the desired technique should cover as many of the possible variables within the domain as possible, while determining which of these variables have the greatest predictive or analytic power. From this base we might abductively reason about the nature of the phenomenon.

2.1.1. Considering Experimentation

The methodology which might seem most 'scientific' or empirical would be to deduce some hypotheses from the contemporary literature and formulate some experiments to inductively validate them. However, as mentioned above, at the time this programme was started there were few domain specific theories with predictive potential and broad coverage from which to deduce hypotheses. While it might have been possible to take a deductive stance toward those theories which did exist (even those related to seemingly associated phenomena such as watching television or playing sports) and formulate hypotheses and thence experiments for those which seemed to infer the greatest potential, I felt that the theories so presented were at an exploratory stage and thus I believed that they often left gaps in what they covered (sometimes deliberately) and as such a more exploratory or retroductive path was desirable. True I could have deduced apparent omissions and devised hypotheses with which to probe these surmised effects or factors, but such an endeavour quickly becomes retroductive, and in a way this exploration of the domain by means of cycles of collecting empirical data, formulating hypotheses about this data, and inferring a partial theory is one that was eventually taken (see below).

I do not reject experimentation as a method of promoting inference and thus fixing belief in findings. I would simply argue that experimentation is a useful tool at a stage of theoretical maturity beyond the point at which this project started.

2.1.2. Considering Factor Analysis

The first type of technique to be seriously considered in this programme was to apply a factor analysis, or a similar technique, to a large amount of data. This would be similar to the approach taken by Kline and Arlidge (2003), but ideally with no bias relating to the genre or type of game. Factor analysis is a technique which seeks to reduce the dimensionality of a set of data by looking for patterns of correlations between the variables. This type of principally statistical methodology and others like it (such as Principle Components Analysis or Cluster Analysis) may, on face value, seem to provide an ideal way to reduce the overall problem down to a simple set of dependant variables that account for the majority of the variability in any data collected in a domain. For our purposes there is a problem however. Statistical factoring techniques such as these will only show factors which have been represented in the data by underlying variables. This requirement to include all variables of potential interest means that these forms of analysis are not suitable for wholly exploratory investigations where the bounds of the domain are not yet understood (see the critique of statistical methods above). This might suggest that it would be necessary to perform a preliminary study to determine the limits of the necessary work in order to capture data about all variables within the domain. It is this approach that was taken by Malone (1981), but he doesn't expand on this preliminary phase to any great degree in his reports. Also if one were to perform a study to explore the full extent of a domain, with the right method of analysis, one might also abductively determine what is interesting about that domain as one proceeds. So the subject of the study could be an extensive qualitative study of videogame play in general, seeking to draw out theoretical factors or generalizations.

Another problem with such a statistical factoring technique concerns the result of such a study. Do factors leave us with a rounded theory from which it is possible to deduce hypotheses about the behaviour of individuals outside the context of the study? Could we infer from these factors (or components or clusters) a causal relationship between the findings and the domain? For example factors such as Challenge, Fantasy and Curiosity (Malone 1981) might hint at a demonstration of underlying Psychological mechanisms, but gives us little clue as to how to infer how they are caused or how they might be mediated or resolved by an individual. They are distributions of preference not a descriptive or causal theory. This might be fine if we have a theory about what things engage players and are seeking a statistical confirmation of their presence and weight, or if we have a number of competing cases from a complete set of data and are seeking a refactoring of that data more amenable to analysis, but if we are asking what, in general, is going on when players play games (or conversely reject a game or games), then we might be better served by another method.

2.1.3. Considering Ethnomethodology

So if we are seeking a means of explaining a phenomenon, and we are not at the stage to deduce that we have a theory from which we can extract testable hypotheses about the fundamentals of the problem, and we do not have sufficient knowledge about the boundaries of the problem in order that we might statistically segment the problem into a subset of components, then we need to explore that problem in order to discern what those fundamental elements and boundaries are. Such an approach is likely to be much more qualitative than it is quantitative.

A famous approach to qualitative research is that of Ethnomethodology.

Ethnomethodology (after (Garfinkel 1984) is named such that one might expect it to be a cohesive methodology for the study of Anthropology (Ethno-methodology). It is not; rather it is the study of 'ethnomethods' or the methods people use to form and make sense of their social environment. (the 'ology' of 'ethnomethods' if you will). This outlook relies on there being a community or society maintaining a social order via a series of methods, and it is these sociological methods which are of primary concern. So if our research question related to studying 'gamers' or some other, more recognizable community of game players we might find use for an Ethnomethodological approach to study games and gamers in society, and how the social order relates to these activities. However we are in fact interested in gameplay in general, and how it is engaged in by any participant in any context. To assume that videogame engagement rests in primarily social factors is an assumption before the fact. Indeed at the initiation of this project I was not of the mind that any eventual theory or theories would necessarily be Sociological in nature. Instead a methodology was selected which provided the scope to construct a theory independent of any single established field of study such as Sociology, Psychology, Biology, Chemistry, Anthropology or Cultural Studies.

We might also ask what the result of applying such a methodology would be.

2.1.4. Considering Grounded Theory Methodology

Another well known research approach in some areas (especially sociological studies in health care practice) is that of Grounded Theory (Glaser and Strauss 1967). Grounded Theory is presented as an integrated set of methods which formalise the process of obtaining a hypothesis producing theory from a domain by empirical means. It is argued (Glaser 1978) that by employing a strict inductive relationship to a domain it should be possible to create theory without recourse to 'grand' existing theory. Rather the argument is that a theory about a domain should be 'grounded' or derived from data

about that domain. In order to achieve this Glaser and Strauss (1967) describe a set of methods or procedures intended to inductively generate hypotheses through iterations of sampling, data analysis, and theorising. Glaser suggests that such an approach could be utilised in any field (not just Sociology). Grounded Theory could in effect be described, following Pierce (1908), as a type of formalised retroduction. A retroductive approach to a domain, given the starting position of the project described in this thesis (little general, empirically derived or supported theory about videogame play), is attractive. However some might argue (i.e. Thomas and James 2006) that a retroductive approach to a domain does not require a methodology as such; rather it being a naturally occurring process of investigation. This could be said to be particularly true of the social sciences (but possibly also true of other sciences) where theory will naturally occur to a skilled researcher as they explore the data and existing theory of a domain. In this regard GT could be said to be of little epistemological value; that one could not infer any greater 'truth' from a 'grounded' theory than one derived through skilled retroductive investigation of the domain without following such a strict methodology. However, surely not every researcher will be skilled in retroductive explorations and theory development, and a formalised process such as GT can act as a guide for those without the knowledge or confidence to create theory spontaneously. An individual without the experience and skills in retroductive research may well be well served by a 'cook book' of procedures guiding them to reasonable methods and methodological integration to achieve the end product desired. The question then is whether an application of GT can produce interesting results if applied by a certain individual. If, without having applied such a methodology, such an individual may not have used a retroductive approach and rather created a thin set of validations of existing theory, or a superficial description and reframing of domain data lacking in theoretical insights, rather than a rich theory

obviously related to domain data, then we could argue that the application of a methodology is warranted.

That is not to say that GT doesn't suffer from problems. Indeed a disagreement between the originators over what the methodology is intended to do (See Glaser 1992 for his perspective) highlights the need for care in the interpretation and implementation of GT.

Fundamental to the interpretation of CGT is what Glaser means when he refers to 'induction', 'sensitivity', and 'forcing'. In regards to induction Glaser may appear to advocate knowledge development by a type of Baconian method (1620) or comparative induction. That is a generalised theory should develop by the logical comparison of cases or salient pieces of data, and not by the process of 'proving' or 'falsifying' other, possibly non-empirical, theory. By this rejection of 'forcing' theory on data Glaser hopes to minimise deduced theoretical bias and ensure a 'grounded' theory. However, as pointed out by critics (such as Thomas and James 2006) the possibility of creating theory via unbiased 'blank slate' induction has been disputed for centuries. That said, such criticisms downplay Glaser and Strauss's argument that a researcher must be 'sensitive' to the theoretical possibilities present in their work. That is that they should retain 'theoretical sensitivity' or a cultivated awareness for what theory may be extracted from the domain data as it is collected and analysed. It seems that there is an apparent conflict in the way the methodology is expressed or at least in how it may be understood (see Urquhart 2002 for an analysis of how this misunderstanding can be interpreted), which may be a result of the way it is expressed. If pure induction, free of bias, is impossible as argued by subjectivists and postpositivists alike then what why does Glaser insist that the methodology is indeed inductive? It seems that this insistence is an attempt to militate against the possibility that the GT methodology might be used to prematurely deduce how data must fit data into existing theory rather than attempting

to rely on data, guided by the researcher's background, knowledge, and skill (theoretical sensitivity) to generate theory. The claim that GT must be inductive is then a sticking point for critics such as Thomas and James (2006) or Bryant (2002), but if we allow for a rephrasing of the methodology (not a re-specifying or remodelling) to suggest that GT is data-driven abduction or retroduction then the methodology makes more sense in a postpositivist epistemological frame. The strictures advocated by Glaser in order to remain 'grounded' in the data (such as avoiding a review of competing theory at the outset of a research project or to avoid deductive debate while one is exploring the domain data) can then be viewed as advice on how to minimise unwarranted deduction during a retroductive examination of a domain. In this light these strictures make some logical sense, even if they might be difficult to manage practically.

So GT seems like a reasonable set of procedures with which one might structure a retroductive examination of a domain, but what the final result should be requires further exploration. Here again there is a difference of opinion in both approach and thence product. Strauss and Corbin (1998) advocate a more closely specified set of procedures than those of Glaser (1978). Part of this specification includes a sense that social data should be fractured and re-presented in such a way that attempts to describe the methods and actions of actors in the domain. This approach then results in something which might resemble aspects of ethnomethodological research. As previously mentioned, with respect to the domain we are currently interested in (videogame play) I feel that we are not obliged to consider social methods as the central point of concern. Indeed this 'forcing' of a particular frame or theme on the domain, as well as the sense that we are looking to describe the factors of the domain as a re-presentation of encoded or fractured data are aspects of Strauss's approach which Glaser argues explicitly against (Glaser 1992). Instead Glaser argues that the sense of what is critical should be found in

exploring domain data, and the result should be an abstracted hypothesis (or set of related hypotheses around a central core) setting out what is critical, supported by data. These hypotheses being based not on a 'complete conceptual description' but on cases which seem to be most prescient and are connected to the majority of the salient (both confirming and dis-confirming) cases collected; the prescience and salience of the cases being determined by both their recurrence and the researcher's skill in extracting (or creating) them.

The approach of Glaser seems to be a agreeable methodology then if we have no firm research question, but only an interesting phenomenon or domain, and we are looking for a result in the form of general or transferable hypothetical propositions without assuming that those propositions must be sociological in nature (or some other 'kind') in advance.

2.1.5. Considering Ethnography or Phenomenological Research

If, as Thomas and James (2006) might argue, the strict methodological steps of Grounded Theory are not necessary, and if a result in the form of generalised hypotheses might seem unnecessarily nomological or even reductionist, then why not reject such constraints and perform a study of prescient cases of videogame play to develop a non-predictive, descriptive account of the behaviours demonstrated and meanings employed by the individuals in the setting of our domain of interest (people engaging in videogame play)? Ethnography (and in some respects Phenomenology) is one framework within which such a case study might be performed. In some regards Ethnomethodology and Grounded Theory could be said to be Ethnographic, where Ethnomethodology takes behaviours and expressed meanings and makes sense of them as methods, while GT takes similar data and distils them into a set of hypotheses rather than a 'holistic' account. At a retroductive phase of research Ethnographic studies are appealing as

expressions of social methods or generalised hypotheses are not expected, but are possible.

Another critical difference between Ethnography and (specifically Glasarian) GT is that difference between GT and Ethnomethodology. Ethnography, by its very nature, assumes that the delimits of the study are a specific social or ethnic group which can be described in terms if unifying behaviours and applied meanings. In studying videogame play how might we interpret this division? Do we apply one? Could we, for example assume that PC gamers form a coherent social group distinct from mobile telephone gamers, such that we could study PC gamers as a social or ethic group? Could we take 'casual' gamers as a distinct group from 'hardcore' gamers? What of those that play no games? While we might find communities which occur due to a common appreciation of games, and that commonality might be described by any of the above terms, to assume that these communities are so easily differentiated seems premature without some idea about how these communities do indeed differ. Such segmentation might be possible if we were studying a club, workplace, or some other easily identifiable collective of individuals with shared goals, but in accounting for the actions and beliefs of disparate groups of people in a more general sense a holistic Ethnographic account seems initially restrictive.

Phenomenology, when taken as an approach to framing social science research, is similar to Ethnography as it has similar constraints in terms of identifying a specific community or specific shared experience. Phenomenological research can be partly explained in contrast to Ethnomethodology. As Ethnomethodology attempts to show what methods are employed in creating or maintaining a social order, Phenomenological research attempts to reveal the common meanings arrived at and employed in a particular activity or community. This focus on meanings means that while an Ethnographer might start their research by observing the activities of a group, a Phenomenologist will start by

interviewing group members about their experiences and interpretations in order to start interpreting their shared meanings as a first step. So while Ethnography focuses on common behaviours then shared meanings, Phenomenology focuses on meanings and then interpretations of meaningful behaviour.

Each of these qualitative research approaches eschew a strict set of procedures, which confident, experienced practitioners may feel is more suitable for exploring a domain retroductively; taking the varying emphases on different aspects of human experience (whether that be observed behaviour, shared meaning and interpretation, or social methods) as guidance on things to look for and account for in their communities of interest. Having taken this guidance they can then explore the domain as seems most appropriate at the time, and can analyse resulting data to a level of abstraction they feel most comfortable supporting (often as a collection of interpreted observations organised around some themes). We might imagine however that where a researcher lacks the skill, experience, or confidence to simply take these approaches as a guide to their own empirical work (that is they might not be confident in which sampling strategies to employ, how one might make sense of their data, how to present the findings in a coherent and structured way, or even what kind of findings to aim for) some further methodological guidance might be welcome. Also if a thick or narrative account of a problem domain is not what is wanted as a result, these methods are not often used for the generation of broad hypotheses.

2.1.6. Summary of methodology rationale

As the reader will discover, the route taken in the research reported in this thesis was to apply Grounded Theory Methodology. This was mainly due to a feeling that thick descriptions lack a sense of strong predictive utility, but also because there was no sense of a parent field from which to draw an approach or pointers as to what one should be

looking for. This research did not set out to be Sociological, nor was it necessarily Psychological or Anthroplogical. It deals with people using computer equipment, but dealing exclusively with videogames sits at the fringes of the human-computer interaction (HCI) field. We might deem it humanistic games studies (or human-game experience studies or something), but what that implies in terms of methodologies and results remains an open question in the field of games research, which we might say is barely a decade old as a coherent field.

As a narrative or thick descriptive approach was rejected, the decision was also made to reject statistical factoring and experimental verification. At the time of initiating this research the field of human-videogame studies lacked the maturity to provide a coherent theoretical background from which to deduce hypotheses and variables. If the variables are not well agreed and there are few established theories relating to the key aspects of the experience then a methodology of exploration rather than verification or even mapping is surely required. GT sits in an empirical research space which supports exploration while also supporting hypothesis formation. We might place it in a similar place in knowledge development to Pierce's retroductive stage, in early phases of GT, reaching into Pierce's deductive hypothesis generating stage in later phases, but stops short of inductive verification.

That is not to say that GT is the only candidate in this space (see Bowers and Schatzman 2009 for another), nor is it a methodology without problematic issues. It is however possibly the most utilised methodology to explicitly occupy this space, and as such there is a wealth of advice from a number of sources in how to proceed.

2.2. Interpretation of the Grounded Theory methodology

The necessity for this section describing my view of the methodology is twofold. Firstly that GT is a type of methodological approach not often practised within Computing Science departments, where statistical, experimental, verificational, notionally inductive, traditional scientific approaches to the generation of knowledge are much more traditional, and as such some explanation of what such a methodology sets out to achieve is prudent. Second, I have attempted to follow Glaser's approach, but he has yet to publish a single, easy to obtain, step by step guide to performing this methodology. The published work other than the original The Discovery of Grounded Theory: Strategies for Qualitative Research (Glaser & A. Strauss 1967) that comes closest to a guide is Theoretical Sensitivity: Advances in the Methodology of Grounded Theory (Glaser 1978), but this publication has few practical examples rendering the advice open to interpretation. This interpretative nature could be said to be the purpose of the methodology as a whole. Glaser repeatedly warns against what he calls 'forcing'. That is forcing the data to fit an anticipated theoretical direction. However when learning to implement this 'freeform' yet structured methodology the lack of real world examples makes the process of learning how each method should be carried out and how one method leads into the next, to form a structured methodology, is far from transparent. This lack of transparency is evidenced by the variability in interpretation demonstrated in the many papers professing to have used a Grounded Theory Methodology and numerous books purporting to explain what the methodology entails, while showing large differences in their implementations and interpretations respectively. The greatest demonstration of the lack of transparency in Glaser's methodology however is his disagreement with his co-author of The Discovery of Grounded Theory, the late Anselm Strauss. This disagreement in the interpretation of the methodology even resulted in Glaser writing a book specifically highlighting the points where Strauss's interpretation

(Basics of Qualitative Research: Grounded Theory Procedures and Techniques; (A. L. Strauss & Corbin 1998)) departed from his own; Basics of Grounded Theory Analysis: Emargence vs Forcing; (Glaser 1992). Strauss and Corbin's Book (now in its 3rd edition) has gained some traction and has influenced the interpretation of GT methodology greatly. This is possibly due to the much more accessible, cook-book style it presents. Glaser's objections are centred on the theoretical underpinnings of Strauss's Methodology, but yet there is still not a single source of practical advice in implementing Glaser's view of GT which this author is aware of. There are only collections of papers (and apparently vanity published books) produced by Glaser showing the different domains in which it might be applied and what one might expect in terms of results.

This section then will present an interpretation of Glaser's methodology (which he prefers to call Classic Grounded Theory). Starting with what kind of 'theory' one might expect to produce, followed by what processes one might expect to perform in order to produce such a theory, and what these processes might look like in all practicality. I will not enter the debate between Classic GT and Straussian GT; if the reader would care to know the minutiae of the differences between these two competing interpretations I would suggest reading Glaser's critique of Strauss and Corbin (Glaser 1992). The section following this one deals with how this interpretation has actually been implemented in order to produce the extant thesis, and a later chapter explores commonly encountered misconceptions (many of which I myself have fallen foul of at various points) which often serve to confound the user of GT.

2.2.2. Generalized Process

In the following gross summary paragraph I have attempted to present the process free of GT jargon. Where necessary, as the jargon will be used as shorthand later in this

thesis, the specific jargon word or phrase is placed in parentheses and italics immediately following the concept.

The Classic GT process is primarily iterative. Data is collected in an ongoing process, rather than as a single study or a study broken into a series of predetermined phases, and the formulation of theoretical concepts operates in parallel with data collection. Indeed, the developing theory directs the collection of data in order to increase the efficiency of the data collection process (*theoretical sampling*). The formulation of theoretical concepts is directed via two methods: the generation of themes (*category codes*) and properties of these themes, and the capturing of theoretical thoughts (*memos*). The collection of data, in each iteration, is guided by the theoretical ideas that are emerging, with the researcher following interesting leads as much as possible (theoretical sampling). These iterations pass through a phase where the theory seems to point in one particular theoretical direction (*core category*) which is then rounded out (*selective coding*) with more iterations focused on this idea, before stopping when this direction is theoretically exhausted and the work is no longer producing new theoretical ideas (*saturation*). Once the primary iterative phase is complete the researcher then takes his, hopefully many theoretical ideas, and decides how they will best fit together to explain the phenomenon via the direction identified (*sorting*); a process which may well yield new theoretical ideas which would also be included in the integration process. These integrated ideas are then the basis for the final published work.

It should be pointed out that the identification of themes is essential to using this methodology effectively, indeed in Glaser and Strauss's original disseminations on the methodology (1967) it is known as the Constant Comparative Method highlighting that the method relies on comparisons within the data set rather than applied interpretations to individual datum.

All of these decisions cannot be automated and depend entirely on the researcher's 'sensitivity' to theory. That is the researcher is relying on their own knowledge and intelligence to identify the interesting themes and make theoretical judgments about them. That is not to say that the process should be deductive; theoretical judgments should only be made which appear in and hence can be 'grounded' in the data, resulting in an abductive or retroductive process.

One issue that should also be pointed out is the relationship between Memos and Theoretical Codes. As I understand it a Memo is a theoretical idea based on Codes while a Theoretical Code is a comparison of Codes rather than data, a super-code if you will.

2.2.3. Practical Process

In practical terms, for many studies in the Social Sciences this means that GT is formed by inspecting each new set of data (interview, diary, article, participant observation or whatever else seems to best fund the research) for points of comparison. Where a point of comparison is identified it is noted and where it differs from other instances of the same comparative code that new difference is also noted as a property code of the parent comparative code. These comparison and property codes are then the material for theorizing. As theorizing is the purpose of the endeavour, the writing of theoretical memos takes priority; the researcher ensuring that theoretical memos are captured throughout.

At some point the researcher will become fairly convinced that they have a good idea about what is driving the actors in the domain, what their key concern is, and switches focus to selectively flesh out this idea. In selectively coding for this core category the researcher isn't attempting to find every possible value for every possible variable, they are attempting to achieve theoretical saturation; saturation of the variables (Theoretical memos), not the values of those variables (codes or data). For qualitative research in

general this would mean fleshing out the interesting contributing *types* of property and how they affect the core. If the core is going to lead to a good theory one would expect most theoretical memos to relate to its properties. When new no new theoretical ideas are being noted in memos, this is the general stopping rule for the main part of the research.

The researcher now has a collection of theoretical ideas in the collection of memos, but this is, in itself, not as interesting as it could be. The theory needs to be worked up into a meaningful whole. While sorting the memos, with the simultaneous aims of integrating as many of the theoretical ideas as possible into the theory, and producing a product which can be written into a meaningful thesis (or paper), the researcher remains aware of new and interesting relationships which may emerge and notes them as new memos to be integrated. At the end of sorting the researcher should have a structure for the intended publication, and in virtue of the methodology used be able to illustrate theoretical points by drilling down from the memos back through the codes to find clear illustrative examples in the data to illuminate points made; demonstrating the grounding of the theory.

The precise physical mechanics of each of these stages is not dictated. Glaser himself seems to prefer to use paper at every stage of the process, from data collection (post hoc and ad hoc field notes) to sorting (paper and scissors), but a case can be made for using software to keep track of the relationship between codes and data, and memos and codes, and some practitioners use other systems of keeping track of their research. The primary aim is keep the project in a fluid, flexible state so that it can account for the data in the domain; allow the researcher to maintain an understanding of that data, the domain and their theory; and not be constrained by the particular mechanics employed.

Other pieces of practical advice can be gathered from Glaser's writings. The following coverage of this advice is not exhaustive, but the points presented have shaped this thesis:

Glaser advocates avoiding literature directly relating to the research domain in order to prevent the theoretical influence of these theories on the developing work. Though while attempting to avoid forcing a deductive process on the data with directly related works he does advocate maintaining a broad scholarship in order to become as sensitive to theoretical concepts as possible. Similarly, discussing ones emerging theory before it is fully formed can rob the researcher of confidence, being swayed by the opinion of colleagues who have not engaged in the grounded process, and so should also be avoided.

Advice on the actual practice and mechanisms of GT are less forceful, however some can be ascertained. For example, where sampling is concerned the place to start is anywhere; just collect some data and start. Once theoretically sampling one should seek out similar data to flesh out properties and different or disparate data to generate new comparative codes. Another example is that when coding, a single part of the data should inform one code (category or property) rather than many, preventing any propensity to create a complex theory from a few data points. However theory production in memos is not so constrained.

2.3. Implementation

Obviously there will have been practical as well as theoretical or methodological decisions to make, such as how to manage data collection, how to capture and track codes and how to capture and manage memos during the coding phases and how to perform the sort ensuring solid follow through into the write-up. For a complete coverage

of my learning process with the attendant dead ends, realizations and inspirations see the relevant chapter later in this thesis. This section deals with a somewhat idealized rationalization of the implementation of the methodology.

2.3.1. Data

The data collection was, eventually, almost entirely reliant on interviewing suitable subjects. While I experimented with other methods including observations, diaries, and email correspondence none of these provided the rapid and rich information provided by sitting down and discussing subjects' experiences and opinions. A few memos were drawn from chance encounters and conversations; a few observations about a partially related focus group I observed during professional activities outside this research; and a single trial observational study. The total number of individuals who contributed data to this research, including a few which contributed directly memoed notes, from those chance encounters mentioned above, to flesh out the sort, is around 25. A non-comprehensive list of participants is provided in Appendix A.

Initially the lengthy interviews were recorded and fully transcribed, but once the theory was emerging and data collection and coding were becoming more streamlined only the recordings were used for coding. Once I had identified a candidate core category I moved to making summary field notes and stopped recording or transcribing interviews altogether. These were practical decisions intended to speed up the process as I become more confident in using the methodology. Transcribing from digital files seems to be less well established than transcribing from tape, and as the recordings I made were on both Minidisc and using the facility of a mobile phone to record telephone conversations. The process of converting digital files and transcribing them can take a great deal of time and effort, which arguably could be better spent in collecting more data and strengthening the research (Glaser 1998). Similarly audio recordings take a degree of setting up; one

needs to carry the equipment when one expects to collect data, find a quiet environment in which to make the recording, ask permission of the subject(s) that a recording be made, ensure the equipment is performing correctly and that there is enough capacity on the storage medium for the full extent of the interview. Almost all issues which I have fallen foul of at some stage (though I always ensured that I had informed consent from active participants). So as soon as I felt confident enough I followed Glaser's advice and moved to making field notes, forgoing audio recordings, speeding up my iterations significantly.

That is not to say that the production of field notes is not problematic. Producing notes and interviewing at the same time slows the interview process and prevents one from fully engaging with the subject. However, producing notes after the interview has concluded may result in one forgetting to note important points made in the interview, focusing instead on their desired outcome. Interestingly Glaser's preferred method is to write field notes after every interview as he believes that this allows the researcher to fully engage with the domain and that the notes are then also the first step in abstraction from data to theory. I feel that the approach I have taken in this study, of moving from full transcript to field notes recorded during data collection is suitable for someone with developing skill and experience as a researcher.

2.3.2. Data management and coding

Keeping track of the data in the form of both text and audio, while allowing for the freedom in coding and memoing demanded by the GT methodology, presents other challenges. Using untranscribed audio as a source of data I was obviously unable to use a purely paper based system, as recording codes on paper would have been quite difficult to tie to a section of a recording, without transcribing it. Indeed I had decided to use some form of software to track my codes and memos and their relationship to the

data at a stage before I decided to forgo transcription. The I used software then allowed the transition through using only the audio without transcription.

The various data, the codes and memos were collected together and tracked using Atlas.ti (ATLAS.ti Scientific Software Development GmbH 1993), a software package designed for an interpretation of GT. This package was just flexible enough to allow me to apply my own interpretation of the methodology and is capable of allowing one to attach codes to a wealth of different data types and to attach memos to both the data and the codes produced.

It must be pointed out that Glaser suggests coding in the margins of the field notes and writing memos independently of the data (but making reference to specific, traceable codes), thus ensuring that individual sections of the data are not over used, and that the origin of a code can be quickly traced (however this approach means that obtaining an overview of all the codes created is much more difficult than if the data, codes and memos are stored separately but linked by some mechanism such as that provided by specialist software).

The actual coding strategy employed in the pursuit of this research was initially guided by Straussian methods; noting interesting points about each piece of data (in my case salient points made during an interview which may have been a phrase, sentence or paragraph). When it became apparent that a primarily comparative scheme was more efficient, this method of denoting all points of interest was halted and the points made chunked together into comparative groupings which then became comparative codes for use in the more Glasarian coding scheme to follow. The originating data and codes in each comparative grouping were also inspected to formulate properties of these codes. Further coding was then performed in line with this comparative scheme, still accounting for the parent category when noting properties.

It is interesting to note that a coding scheme whereby the researcher denotes parts of the data and summarises them as some label or shortened description at first seems less complicated and onerous than comparing each section of the data to all other parts of the data looking for similarities and differences. However, in summarising all the data, applying any possible label the researcher can imagine, the wealth of codes quickly becomes too large to handle, and it was when this was realised that the original coding scheme was abandoned, new insights into the methodology were sought, and a new, more practical, coding scheme was initiated. A later section of this thesis will discuss misconceptions such as this and how they might affect a research programme. The above explanation of the false start and eventual recovery are included, because by starting to code in the descriptive way and then reforming that code book to be compatible with a comparative method of further encoding, the nature of the methodology might have been fundamentally affected, potentially producing a different result than if only one coding method had been used. It is my belief that as enough data was collected to arrive at theoretical saturation and no more (there was a *lagom* amount of data and codes utilised in creating this theory, to utilise a very apt Swedish word), and that any further data collection, or coding fully comparatively at a different point in the process would have yielded a very similar result. This is a feature of the methodology, in that in iterating the data collection until theoretical saturation, no more data need be collected than necessary, as further data collection will not further modify the saturated theory, and it is the theory which is critical rather than the codes.

2.3.3. Theoretical sampling

A fundamental feature of the Grounded Theory methodology is that of Theoretical Sampling. As there is no theory or theoretical position at the start of the process of collecting and encoding data the only rational sampling strategy is that of Opportunity; grabbing the easiest to obtain data and analysing that. Any other strategy would assume

that we have some idea as to what kind of result we will expect, pointing us at specific places to look, which would require some hypotheses, which should rightfully come from a theory. As such it is only as hypotheses are formed that increasingly specific targets are sought in the data. In our case this method of sampling means that there should be no assumptive decision to sample a set number of game players, from certain populations in a specific way. Where other, more validative, types of study might set out to sample, by structured interview say, a fixed number of people from both genders, a range of ages, specific races, specific nationalities, ranges of intelligence, the 6 NRS social grades, action game players, casual gamers, hardcore gamers, World of Warcraft players or any other group, we might reasonably ask why this metric was considered over other possible sampling dimensions. If no theoretical justification exists for a particular sampling dimension then there is no reason to consider it. If the sampling dimensions are intended to capture a representation of the population then there is still a problem as we do not know what proportions of what dimensions would constitute a representative sample, as we do not yet know the critical dimensions let alone the possible proportion of representation of that sample in the population.

Within the GT Methodology, as the opportunity sample is analysed the researcher is likely to form ideas about what seems to be going on, what the dimensions are, and thus, how the population might differ and thus what types of data might be useful to collect next. There are strategies to consider here, in that there are two ways of ensuring that the code and memo books are developing in useful ways. Once the researcher has a dimension in mind, sampling on that dimension can involve seeking different cases to those already included, in order to create more codes and memos, or similar cases to those already included, to saturate the properties of the existing codes and thus saturate the memo book.

The sampling performed in the research presented here focussed primarily on the demographic of the sample, with a little exploration of the data collection method. Initially the sample consisted of close friends with some known interest in playing videogames. The next step was to sample acquaintances of different ages (as there seemed to be a sense that experience of play was possibly involved) and from different social backgrounds (as it seemed theoretically obvious that my peers would have a fairly homogenous view of videogames: we were all likely to have encountered and enjoyed similar games). A recurring theme of many 'off record' conversations was that many people rejected videogames, and some of the data from people of different ages and backgrounds indicated that there were different ways that people encountered games as agreeable and became players, as such people who rejected games as well as people who would describe themselves as 'hardcore' gamers were interviewed. By this time the hypotheses of process of engagement and identification (with identification seeming to provide a core hypothesis at this stage) were well established and the sampling strategy shifted to short semi-structured interviews with a broad opportunity sample (mainly students on various courses) to saturate these concepts. As such the sampling dimensions could be said to have been gaming experience and stated preference for videogame play as an agreeable leisure activity followed by age (which might also capture part of the experiential difference). Social background was covered to some degree in the nature of the opportunity sample as was gender, and the theoretical direction of the research made explicitly sampling for the limits of these dimensions redundant in that it seemed unlikely that I would have found anything which might have expanded the theory of negotiated cultural value by talking to individuals who could be described as more privileged, educated, impoverished, marginalised, male or female than the existing sample other than a longer list of code properties of non-core codes. This stopping rule (that only data which expands the theory not the code book) is

important. The 'interchangeability of indicators', where a new piece of data can be said to inform the theory in the same way as another, gives rise to a general theory of the domain rather than a narrative of the cases sampled. It is my contention that the data collected are sufficient for promoting the theory developed, and that further data will provide further indicators, supporting rather than substantially expanding the theory. I further contend that sampling on any dimension within the domain of videogame players (and videogame aware non-players) will yield an equivalent theoretical result.

2.3.4. Memoing and sorting

Initially the memos were captured using the memo facility of Atlas, but could have originated in other places such as my personal pocket notebook.

During sorting the memos were printed out in their entirety, cut into individual slips of paper, and further memos were produced on hand written slips to be integrated along with the printed memos during the process of sorting.

At the stage of initiating the sorting process the memos suggested that individuals' value judgements towards features of a game were related to their individual sense of their expected place in society; the memos were then sorted around this core, creating the dense, integrated theory presented below, which also draws in the other major theme which was present in the memos, that of a negotiation or process.

The aim of sorting in this instance was to develop piles of memo slips which contained the content for a handful of thesis chapters that could be used to explain the core category and how the other theoretical concepts contribute to the core, then to take these chapters and further sort them into subsections. These chapters and sections then directly informed the theoretical parts of the thesis.

2.3.5. Writing up

Writing up is considered to be part of the GT process rather than an activity which happens once the process is completed. That is the activity of creating theoretical memos leads into sorting and thence directly into writing. Also, while the theory is written as sorted there should also be an attempt to demonstrate where the theory sits in the general theoretical context. To this end my literature review at this stage (literature reviews are advised against until a core category is identified, in order to maintain groundedness in the data), was captured on memos written on different coloured paper to be sorted into the relevant section and subsequently worked into the eventual written thesis section. The different coloured paper was used to clearly differentiate the memos concerning concepts from literature and those from the grounded process, while they are all piled up together in the sorted theory.

Some other writing did take place before saturation, sorting and actual thesis writing. I focused this on my understanding of the methodology with some mention of emerging codes. This did prove fruitful as feedback did suggest alternative views of the methodology which ultimately resulted in greater understanding of the ongoing processes and aims.

Similarly, a brief literature review was performed even before GT was selected as a methodology, though no literature relating to theories of videogame play and engagement were consulted throughout the coding phases, and the major literature review was performed as part of the write-up.

2.4. Summary

In summary then the Glasarian (or Classic) Grounded Theory methodology is in Glaser's words, "…a highly structured but eminently flexible methodology. Its data collection and analysis procedures are explicit and the pacing of these procedures is, at once,

simultaneous, sequential, subsequent, scheduled and serendipitous, forming an integrated methodological "whole" that enables the emergence of conceptual theory…" (Glaser & Holton 2004).

It is *sequential* in that there are 4 distinct phases: Open Coding; Selective Coding; Sorting; and Writing. It is *simultaneous* in that memos are constantly being generated; while it is easy to conceive of the coding phases as being sequential (collect data then code the data and then memo the codes) these activities do in fact occur all at once. For example while the researcher is collecting data they are likely to be implicitly coding that data on the fly (noting similarities between what this new data represents and relative to previous data collected) and is also likely to be generating theoretical ideas at any time at all including data collection. It is *subsequent* because the results of each level of abstraction are directly related to the previous levels of abstraction (The real world to the method of data collection to the comparative codes to the theoretical memos to the sorted groupings of memos to the thesis). It is *scheduled* in that the researcher knows what they should be doing next, and it is *serendipitous* because the researcher hopes to chance upon a good hypothesis without knowing the nature of that hypothesis at the outset.

2.5. Example

In order to illustrate the process so that the following sections, which cover the results of applying the methodology, can concentrate on theory over data it might help to provide a real example of how the process might be performed.

Focusing on specific codes, starting with the very first interview in the research we can compare:

> *KA: Yeah, so cartoons; pretty pictures.*

JS: Cartoons… You've finished Luigi's Mansion as well.

KA: Cartoons, pretty pictures! Platform game.

JS: Yeah.

To later in the interview where we are just running through the games on the shelves in the house KA shares with her boyfriend.

JS: You've never played Colin McRae?

KA: Racing, cars. No I have enough problems on driving lessons.

Immediately we can see that she is making a selection or choice. She is making an active choice. So we have a code of '**Active selection**'. These 2 examples give us at least 2 properties. Firstly she is selecting games based on their 'cartoony' **graphical style**, and in the second case she is choosing to not play a game because of a relationship with 'real world' activities (in this case KA is looking for distance from a part of her real world experience that she doesn't enjoy), so we have another property of **relation to real world activities**.

So with these 2 comparisons we have

Category: Active selection

Properties:

Graphical style

Relation to real world activities

This interview then continues, discussing the selection criteria KA uses to differentiate games that she might try vs games that she wouldn't:

JS: You've never played Halo.

KA: Shooting games, I might get violent.

{Jet Set Radio Future indicated} Finished.

JS: You've finished Jet Set Radio Future. Is that because it looks like a cartoon do you reckon?

KA: Well there was… The Xbox arrived… bearing in mind that it's the first time I've played computer games since the very first Gameboy, the little black and white thing. So it was actually quite new and quite different and rather quite scary because it's all 3D. So it arrived with Halo and Project Gotham Racing, neither of which I got. I just wasn't interested in. And then [my boyfriend] has to get that one {Jet Set Radio Future}, because he was interested in it, and it's just a bit more playable as opposed to them {Halo and Project Gotham Racing}. They're cartoons.

JS: More playable than…

KA: Racing games.

JS: Racing games…

KA: All about cars and spins and driving.

JS: What about Halo though?

KA: Shooting! Might get violent. I might go out and kill little Grannies in the street.

JS: <laughs>, but then again you might just go on a big massive sailing round the world mission.

KA: *Yeah, no, but I am actually… Yeah, no, I'm already thinking about that. [a friend's] already invited me to Tazmania.*

JS: *Collecting pearls.*

KA: *Why not? Slaying green demons. It's not exactly the same as killing people.*

In this jocular exchange further properties for active selection are exposed. She includes the **novelty** of the experience ("quite new and quite different") and the supposed or **perceived affective possibilities** of the experience ("I might get violent"). Other codes, unrelated to the active selection of games developed from these parts of the interview relate to the moral value of the experience and the possible affective power of the experience.

The next interview with KA's boyfriend JA yielded a lot more detail about how he might try games. How he selected them was seemingly much more ad hoc than KA's targeting of cute, cartoony games.

JA: Yeah I bought that because I was in the shop. Just before Christmas I wanted something to do through Christmas and picked it up. It's pretty much like Lara Croft with vampires and… It's just having that amount of spare time… and I got into it and…

So here we have a new method of active selection, by **browsing in shops** for something (at this stage we're not sure what), adding to the properties of an active selection process. There are other related codes suggested in this passage too. He seems to be hinting at investing available spare time and a method of selection which involves actually playing the game, but only by comparing this passage with other parts

of the interview and parts of KA's interview could we draw anything useful from this. Fortunately JA's interview is full of these relationships. In terms of looking at the properties of an active selection we can keep saturating the code.

> *JS: What about the infamous Playstation 2 games, like GTA3, and Vice City, and The Getaway and stuff like that, about doing other stuff apart from just driving. Would you reckon you'd…*
>
> *JA: I don't think I would, but without having a go I can't say. I'm not going out of my way to have a go. I mean, if I get the chance to play it, and enjoy it then yeah, I might get the Playstation.*

So he seems to have made a choice this time on the **relative availability** of a game and the game system to play them on. So in terms of active selection we have a more passive sense of availability.

These codes now raise ideas: How does availability push up the possibility of selecting to try out? Do we need another code for trying out? If there is a code for trying out, then surely we have a process of select, try out, play? In the selection phase what is the relationship between these properties and the other codes being developed relating to investments, affect, the themes of games, the contexts of games, the memorability of different experiences and so on.

All of the possible relationships between the codes lead us to some questions: Is the player selecting games based on their degree of identification with the game? Is there a relationship between investments and identifications? Is selecting and playing to try out a process of playing or selecting, when does selecting become playing and does it matter?

These questions are based then on memos that suggest that players are investing some resources to get returns; that players are identifying with features of games; that selection is the start of a process of becoming engaged, and that selection is not an activity performed in a vacuum but one where opportunity and context play a large part.

In order to evaluate these hypotheses in some way we need to find people who invest differently, who play different games, or who select their games in different ways.

This need suggested that someone with either lots of knowledge about games or little knowledge would be appropriate (over the moderate knowledge of both KA and JA). So that we could find out if they use this knowledge (or lack of) to structure their choices differently.

JS: Yeah, I know what you mean. Well, alright then, enough talking about games that you enjoy and that. There's a few things that I want to talk about in general. How do you decide which games to buy?

CA: I guess I kind of go with genres I know I like. Like, I would like to buy Zelda: The Wind Waker, because I like that kind of game, and the way it plays, and I've played the ones previously and so I know what I like and I know that it's the kind of game that I'll enjoy, and, you know, I suppose it's a similar thing as with Final Fantasy. You know what you like and you sort of read the reviews and you think you'd enjoy a similar game, so you get the sequel or the follow-up.

JS: Has that ever backfired though?

CA: Only with VIII, yeah, Final Fantasy VIII.

JS: Well Yeah.

CA: And other time it'll just be a game somebody's told me about really. That's pretty much it…

JS: Do you read reviews?

CA: Rarely to be honest, rarely. I think it's just one more… most of the time somebody tells me it's a good game, or I have actually played it somewhere before and I have liked it, or in some cases I've read a review and just liked the idea of a game. Like Silent Bomber or something. You know it didn't get a massively 100%, it was like 75% or something like that, but the idea sounded more interesting than a lot of the other games and it was fairly cheap, so that was the reason I got that one. But, a lot of the time you buy what you know, a general thing you know are good or from a company you know makes decent games. I like most of the Codemasters' stuff, and I think most of the genres they do, they do well, so I'm more likely to buy Colin McCrae than I would another rally game that wasn't from them, because I know that they do well thought out, very well playtested games.

JS: So, like, publishers or ,I suppose, developers.

CA: More developers yeah. Well sometimes it's publishers, you know, Square are your pretty safe bet it's gonna be a good game.

From this passage we can see that CA is using some fairly sophisticated methods of selecting a game. His first criterion is to use genre as a mode of selection. Then he seems to modify that and talk about games in a series, but backed up by reviews. So now we have a few more properties to put in our active selection category genre, media

coverage, and similarity with past experiences. He then goes on to add that he selects according to recommendation and by following development teams he knows the work of, or at least the publishers of those games.

These codes seem to suggest that CA has strategies for minimising the risk that he will end up playing a bad game by relying on a broad network of indicators: from friends recommending a game, to developers he feels he can trust to consistently deliver quality experiences (like those he has experienced in the past). This last point might add a cyclic element to the process of selecting and playing games we have already suggested might be happening. It might also hint at a shortcut employed to attempt to ensure good returns on the investments required to select and play a game.

As we can see the data is revealing some interesting properties of how people might select games. Combining these codes and their properties gives us a number of possible theoretical codes (merging active selection, trying out, and memorability say into a cyclical process of engagements). Combinations of codes and theoretical thoughts about them are hinting at some kind of investment/return relationship.

It is when we get to the interview with DB, where he states:

> *DB: Herdy Gerdy. I don't really like it. My mum kind of likes it, so it's kind of her game. Not mine.*
>
> *JS: So you don't like it. What don't you like about it?*
>
> *DB: It's kind of babyish.*

That suggests a clear failure of identification (DB is not a baby and thus doesn't want to play games he feels are babyish) that looking closely to all the data that has already been collected for instances of identification or disidentification seems important. Is KA asserting an identity expression when she says she wants to play games with cartoony

graphics? What about when she says that she wouldn't want to play a first person shooter, because she wouldn't want to become violent? Maybe the first instance is clear, but the second instance is one of genuine concern over the purported affective consequences of playing games. When CA says he uses recommendations to select games who does he seek recommendations from? Does he identify with these people or does he simply trust random strangers? Some later backtracking on the idea that one might base a decision to play based on review scores suggests that he values the opinion of some people more than others.

These relationships between selection, investments, and identities require further saturation. In this respect we can sample more people without being too fussy about how they have got to play the games that they enjoy, though maybe including a few people who don't enjoy games would help in understanding how the selection can be wholly negative. Do non-players, especially those that have played games in the past, have a feeling that the costs outweigh the benefits maybe? Would this still fit with an idea that people play games that they identify with?

DA: My impressions; my associations with computer games...

JS: Yeah

DA: Probably date back to a... erm... well negative is perhaps too strong a word, but... an experience I had when I was a child with a relative of mine. We were back in Italy and he was absolutely fascinated by his computer games. I can't even remember what it used to be in those days, we're probably going back to twenty years ago. Was it discs that you had or Floppy Discs? Something that you had to slot into the computer to make them work, and he had this huge what's it called a 'Joy Stick'?

JS: Yeah probably. Sounds like an Amiga or ST setup.

DC: Something like that yes, and he showed me all his new computer games and I just sat there, because obviously I didn't have a computer at the time, and I just sat there and yeah... it was all a bit like... well it all went a bit like 'kajung' like this.

JS: Straight over your head.

DC: Absolutely, straight over my head and it never really appealed to me, the medium of computer games. Perhaps because of the content, because one of the things I associate with computer games is going out to fight a lot of virtual people; characters, monsters, whatever... creatures, to get to a certain point to get your treasure, or whatever it is that you need to get to the next level. That's my association, or two associations.

So here we have a man who's negative association with games, gained though poor past experiences and an overall impression of their content (or required interactions) is not sufficiently sophisticated for his taste. In this instance there are already codes for selecting games based on positive or negative past experiences and based on the themes or content, but what is most interesting here is that he obviously didn't consider his relatives love of games to be 'for him' and that his impression of games, to a large degree, resolves to the simplistic act of killing monsters to get treasure. This is a sense that games are not for him.

Further probes later in the interview ask if it's because he didn't get to play his cousin's games which resolves to 'maybe'. In order to get a sense of identification asking a few questions about who plays videogames yields interesting responses such as:

DA: Put it this way: I can't really see a philosophy or arts student play computer games all day.

DA being a performing arts graduate. So we have moved away from saturating only the code of **active selection** and now we have codes about identification building up. Theoretical codes of **active selection by identification** and memos such as "Can the types of engagement be broken down into Gameplay features, social contexts and identities, and general quality factors?" are filling the memo book.

After several more taped interviews it became apparent that the interesting avenue to pursue, the one that might tie together selection, contexts, play, trying out, value, investments, the process of engagement, challenge, memorability, and a wealth of other codes being developed and explored simultaneously, was that the player needed to identify with the game, that they needed to feel that they were the kind of person who would (should?) engage in that activity in that context.

Once this decision was made, to saturate the core category of identification, subsequent interviews were reasonably brief, focussed on how players got into playing certain games and made decisions about what games to play and how they managed their play context and play time.

As this thread of examples is focussed on **active selection** a wealth of other properties were noted, but this was not the main focus, but the final list looked something like this:

Active selection: Category
Active selection: Property - Availability
Active selection: Property - Box (art and blurb)
Active selection: Property - Bundled
Active selection: Property - By genre
Active selection: Property - By graphical style
Active selection: Property - Challenge type
Active selection: Property - Competition potential
Active selection: Property - Copying from friends
Active selection: Property - Critical mass of other players

Active selection: Property - Expansion packs
Active selection: Property - For extras (minigames, non-central experiences)
Active selection: Property - Games I am likely to be good at
Active selection: Property - graphical 'quality'
Active selection: Property - Hardware constraints (esp. PC users)
Active selection: Property - Hype
Active selection: Property - Internet review pages
Active selection: Property - Known developer
Active selection: Property - Known publisher
Active selection: Property - Media coverage
Active selection: Property - Minimum session length and scope for segmenting
Active selection: Property - Novelty
Active selection: Property - Percieved affective consequence
Active selection: Property - Percieved commitment
Active selection: Property - Percieved play depth offered
Active selection: Property - Play context fit
Active selection: Property - Promise of potential social experiences
Active selection: Property - promised activities
Active selection: Property - Provenance (amusing background/development story)
Active selection: Property - Recommended
Active selection: Property - Relationship with real world activity
Active selection: Property - Sequal of previously enjoyed game
Active selection: Property - Shop browsing
Active selection: Property - Similarity with past experiences
Active selection: Property - Social play possibilities
Active selection: Property - Thematic
Active selection: Property - Trading
Active selection: Property - User review scores
Active selection: Property - Waiting for a certain title in a series to be announced and then subsequently released
Active selection: Property - Word of mouth (not direct recommendation)

These codes formed theoretical codes and memos with many more codes in the collection of memos. For example:

"MEMO: Technological affinity

It might be that hardcore gamers are tech fetishists and game rejectors are tech reactionaries. For example DA clams that tech minded, goal driven, individuals are most likely to play both stand alone games and interact in computer mediated spaces, where more philosophy/art type people are unlikely to engage in either to any great extent, though the social interaction offered by the virtual world might attract some creative types. This is probably a self-justification."

A wealth of these ideas then forms the pool of ideas for the theory presented in the sections below.

As suggested in the methodology section of this thesis, the memos are expected to be ideas, not integrated propositions. The integration of the ideas into solid hypothetical propositions comes through the sorting process. At the stage reached in the example above the codes are a means by which the data are fractured, to break them down into abstracted comparisons. The theory comes from the production of memos related to codes about the data, and not necessarily from the data itself. So the theory is grounded in data, but is not a narrative re-presentation of the data. The following sections are a literal write up of the disparate memos which have been abstracted from the data by using codes as material for theorising.

Section B: The theory

3. Overview of theory: Engagement as negotiation of value to net cultural worth

The following 3 chapters which make up the next section of this thesis will detail the theory as developed. As suggested I have formulated a Grounded theory which simultaneously views an individual's value judgements about a game, game system, or game type as a set of sub-values. Each of these sub-values are evaluated by the player, over the course of an interaction, according to their socio-cultural value set framed as an identity. If the player or potential player can negotiate these value judgements to result in a positive net worth then the individual will play that game if encountered or will continue to play that game if they had already started to do so. Obviously the converse is true also, where if the costs (judgements of negative value) outweigh the benefits (positively valued features) then the individual will avoid engaging with the game or will cease to engage. In simple summary the individual sees an obvious feature of a gaming experience and implicitly (though occasionally explicitly) asks themselves "Am I the kind of person who would engage in this activity?".

The first of these chapters (Individual value judgement of feature as socio-cultural reflection of perceived role) deals with how what appears to be an individual's taste is rather an apparent cultural response. This is not simply a response to peer influence, but seems to be a more sophisticated positioning by the individual of themselves as cultural actors, assuming particular roles within society and how this directly influences their potential or capacity to engage and their actual engagements with electronic games. Essentially this first deals with the hypothesis that **players find engagement with games by asking the culturally loaded question "Am I the kind of person who would engage with this?" for each pertinent feature of the videogame product.**

The Second chapter (Process of engagement (selection to reflection)) deals with the process of engagement. How a player responds over time to any offering. As I hope to show, much of the engagement with a game, system, or game type often happens far before the individual physically encounters the product in play. The hypothesis of this chapter is that **players perform a cycle of engagements; selecting agreeable products, then playing with them, and then reflecting on these experiences before returning to the product or selecting a new product.**

The third chapter (Negotiated identification of and with a sense of Cultural worth) will tie these two together to show how over the course of an interaction, and indeed throughout a cycle of interactions the individual is reconciling their perceived role with what they encounter in context. It is this which I will refer to as 'negotiative' as the player or potential player is implicitly negotiating their potential role as a player with a perceived social judgement, but these roles and judgements are not fixed and are contingent on context. We can also say that the player is negotiating the space of potential experiences, seeking those which might be agreeable (or showing a match between their culturally mirrored perception of self and the game features which would be important to that role, either positive or negative). Thus the hypothesis of the third chapter is that potential **players engage with videogames via a process of negotiated net cultural value.**

In essence the first two sections relating to the sub-hypotheses could be imagined as being pillars supporting and accounting for the composite core hypothesis:

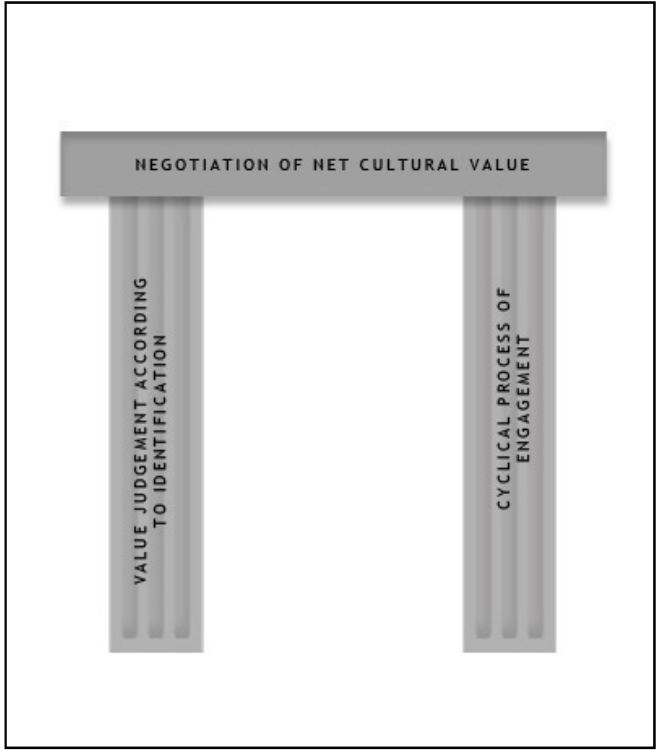


Figure 1: Illustration of gross theoretical construction

The style of these next three sections is deliberately abstract or theoretical. That is as the previous section suggests, these sections present the substantive theory about videogame play and are not a representation of the data as a narrative, nor are they a set of data/code relationships. The intention is to present a well integrated theory without bloating that presentation with bloated examples which might serve to shift the focus to a reinterpretation of data outside of the grounding process and away from the theory. Such a shift might remove some of the 'grab' of the theory and cloud any intuitive sense of fit, relevance, and workability the reader might feel.

This style of presentation is normal for Classic Grounded Theory and is suggested by Glaser in his advice on the method of writing up GT:

> *"...the dosage mix for grounded theory is to minimize illustrations, using them for support purposes, so that the analyst can maximize use of concepts within the allotted space of the paper or chapter. The power of the theory resides in concepts, not in description. The credibility of the theory should be won by its*

integration, relevance and workability, not by illustration used as if it were proof." (Glaser 1978)

More recently expressed by Judith Holton thusly:

"To understand the nature of classic grounded theory, one must understand the distinction between conceptualization and description. Grounded theory is not about the accuracy of descriptive units, nor is it an act of interpreting meaning as ascribed by the participants in a study; rather, it is an act of conceptual abstraction."

And

"For a classic grounded theorist, what matter are the concepts. The conceptual abstraction of classic grounded theory frees the researcher from the qualitative paradigm's emphasis on The Grounded Theory Review (2009), vol.8, no.3

43 detailed description and elucidation of multiple perspectives. The skill of the grounded theorist is to abstract concepts by leaving the detail of the data behind, lifting the concepts above the data and integrating them into a theory that explains the latent social pattern underlying the behaviour in a substantive area (Locke, 2001). The result of a grounded theory study is not the reporting of facts but the generation of probability statements about the relationships between concepts; a set of conceptual hypotheses developed from empirical data (Glaser, 1998, pp. 3, 22)." (Holton 2009)

As with other advice from the Classic Grounded Theory 'school' this advice makes sense, as to attempt to draw out the thread of how data was substantively coded, theoretically coded, theoretically memoed, and then integrated into the form presented below, for

each concept presented, would present two major problems. The first is that such a presentation would break the flow and intent of the thesis, laboriously documenting each point with examples would suggest that the theory represents facts derived mechanically and undisputedly from the data collected. That is not the intention here. Rather what is presented below are a number of integrated hypotheses about what the major variables in videogame play are. The second problem is a practical one. To present the derivation of the theory from the data for each and every hypothesis, including all data comparative or substantive codes, code comparative theoretical codes, memo fragments, and integrated theoretical memos would result in a thesis far greater than the loose upper limit for a thesis of this type.

Where illustrations are presented, they are presented to help the reader to get a feel for some part of the data. They are not presented as facts or the totality of the grounding of a particular concept. As the illustration in the previous section hopefully shows, the comparison of multiple pieces of data yielded very rich and varied codes, which in turn yielded many hypotheses as to the significance of each code. Hopefully these illustrations provide a sense of the variability and richness of the data.

4. First theoretical sub-category: Individual value judgement of feature as socio-cultural reflection of self sense

This chapter sets out the memoed theoretical ideas that deal with a player's sense of identification with a game or gameplay system. It will show that this sense of identification is resolved as a set of summed cultural value judgements, resulting in a net or aggregate cultural position toward the gameplay offering. I propose that this is a fundamental factor in any player's engagement with a gameplay offering.

Developing a general theory of the experiences and concerns of game players must recognise that different people engage in different gameplay activities. Indeed some eschew computer or videogames altogether while others engage with types of games and various associated activities as their primary leisure activity and in recognising this difference in engagement we should account for it theoretically. Even if we are to take a deductive stance that videogames are in some way immersive (Brown & Cairns 2004), intended to induce a state of 'Flow' (Cowley et al. 2008), or must be 'fun' we would still be left with an incomplete theory of how games are engaged in in general. I am proposing a different theory of engagement, because, via the data collected, the methodology has produced a set of grounded hypotheses which have little to do with Flow or Immersion and posit that sometimes "fun" can be problematic for some individuals as a motivation. At the very least we can state that these descriptions of the motivations to play are not universally accepted and sought by all players.

4.1. Identification with features

What separates one person's engagement with a videogame product from another's? Of great importance to this thesis is the hypothesis that players seem to implicitly ask themselves "Am I the kind of person who would play a game like this?". That is, they are

seeking experiences which conform to their assumed social role or self perceived cultural identity. For example interviewee DB (A male in his early teens Interviewed along with his middle aged mother MA) states that he didn't play Herdy Gerdy (Core Design 2002) because it was "Kind of babyish." A criticism he levelled at Final Fantasy VII (Square 1997) later in an unrecorded section of the interview (during a discussion of the relative merits of Final Fantasy VII, VIII (Square 1999) and IX (Square 2000)). This criticism suggested to me the hypothesis that DB, as an adolescent male, was attempting to assert his identity as an adult male through surface features of the games he plays. In the cases mentioned he seems to be referring to the graphical presentation of the games as while Final Fantasy VII deals with difficult existential themes in its story and also involves complex gameplay mechanics, these features are difficult to reconcile with the assessment of 'babyish'. However the graphical style, where the characters are often presented as childlike, is common to both games and it seems that it is this feature to which DB took exception in summarising the games as 'babyish'.

Looking through other data for comparisons, the concept of enacting self perceived roles was important in the games that people choose to play. An another example BA (a middle aged man) was uncomfortable playing games (such as the Metal Gear Solid series (Konami Computer Entertainment Japan 1998)) which requires the player to use their avatar for murderous purposes, stating *"I don't particularly like the fact that you can go up to somebody and break their neck, even though it... erm... was an experience. The first time around I went 'hmm, interesting', but very immoral".* Most telling in this regard, and the purpose for seeking out respondents of this nature, is the total breakdown in identification with individuals who reject videogame play as a worthwhile activity. The field notes for a short interview with DC (a twenty something woman) expressed a number of identity orientations including that she didn't play

because she was a girl; because when she was a child she spent most of her time playing outside and that when she was younger and working as a babysitter she wished the children in her care would go outside and play as she once did, and leave her in peace; because she felt that people who engage in games are 'displacing' or avoiding facing up to real world responsibilities. Similarly DA (a twenty something man) was concerned that game players lacked creativity or imagination, being the domain of technically minded people or problem solvers; and that sitting around playing games was lazy and a waste of time. He did express interest in the Nintendo Wii as a less lazy alternative. Knowing a little about his vocation (performing arts) suggests, based on the hypothesis of orientation by identification, that his cultural self identity, which includes the sense of being a creative and physically active individual, prevents him from engaging with videogames which he sees as sedentary and passive; equivalent to "channel surfing" in his own words.

This enacting of self identified roles might be said to be similar to Cooley's 'Looking Glass Self' (1902), the theory that an individual's sense of self is constructed by reasoning about how the individual imagines themselves to be perceived by others in their society or immediate social context. We might say that so constructed the individual will behave in a way that seeks to reinforce this positive identity image and seek to minimise any possibilities that they might be viewed poorly by others.

What is apparent from this first hypothesis, that players assign value to features by identifying with them, is that different players do not view the same game features with equal weight. Where some are concerned with the graphical presentation others are concerned with moral questions ,while others are concerned with the actual relative apparent physical actions involved in play and so on. Most often these orientations are stated negatively, in that the individual will state that they are not the kind of person

who would find an activity with a certain feature presented in a certain way enjoyable. Statements of positive orientation are usually less obviously culturally loaded. For example KA (a woman in her twenties) stating that she likes games with a 'Cartoon' graphical style. Suggesting that she feels herself to be like a cartoon seems foolish, while other hypotheses concerning her sense of being a young, fun, vibrant (as cartoons are often deemed to be) individual would at this stage be ungrounded, but potentially indicative of the complicated nature of personal identification with features of the experience.

4.2. Failure to identify implies cost or negative value

Sitting alongside this sense of identification with features is a recurring reference to costs. The price of the hardware or software, the relative portability of the device, the amount of time the player needs to invest in becoming skilful at a certain game or even in moving from one convenient exit point (e.g. save point or end of level) point to the next, the extra hardware requirement in terms of PC game minimum requirements or console peripherals. In exploring these investments I found that they were given more or less weight relative to the benefits the user perceived. For example in interviewing HA, HB & OB (three twenty something self-professed 'hardcore' gamers interviewed, and field noted as a group), the issue of hardware and software costs was barely mentioned (that they would own the latest hardware and the latest games was expressed, but the cost was seemingly a low priority) while time costs were mentioned, but only where they felt that their online First-Person Shooter (FPS) clan was taking too much time to manage. HA expressing with pride at one point, during a discussion of 'cheating', that only in playing any game at the hardest difficulty setting was he able to feel satisfied, and he would persist for as long as it took to complete the game in this way: *"The thing about it is when we play games, to start off with we always play on the hardest setting*

as well. It makes it really challenging as a game. Sometimes you don't enjoy it; you're just trying to do the same bit over and over and over again. So when you finish the game: put some cheats in and have some fun after that. You've done the challenge, now just have some fun.". Whichsuggests that he was quite prepared to invest substantial time and effort in becoming skilful enough to do so.

So, required investments are forces which can drive down the motivation to engage and as such are functionally equivalent with a failure to identify on a cultural level. So we could suggest that a failure to identify with a certain feature is a cost. A cultural cost if you will. Referring again to The Looking Glass Self, we could rephrase this as the individual seeing the activity as something which they perceive might make them lose face; that they imagine that they will be viewed poorly by society if they were to admit to engaging in such an activity or are caught engaging in such an activity. Essentially supplanting their orientations to those that play such games to imagined others, such that if they witness a person playing a certain game or playing in a certain way, they would apply certain prejudices to that person; prejudices which they do not wish to be applied to themselves.

4.3. Returns as positive 'cultural value'

Video games seldom provide explicit material returns to offset these investments or mismatches in cultural orientations. A small, unrecorded exploration of where they might provide material returns (where I worked with a team developing new gambling games, but was refused access to some raw focus-group data for my research) revealed that while a promise of possible material return was a motivation to play the investment in understanding required by the player to achieve that return was often superseded by the sense that the game should be 'fun', that various features of a gaming system should conform to the players sense of self; does the representation suggest fun, does it look

like a proposition for 'serious gamblers', does it look like a proposition for 'mug punters'? None of these positions rest either on the presentation or potential for profit, but in a strong sense of the 'kind of person' the game seems to be for. Other types of non-material concrete returns have become more apparent in the ‘casual gaming’ market recently with such games as Dr Kawashima’s Brain Training (Nintendo 2005) and Wii Fit (Nintendo EAD 2007) being sold on the promise of allowing the player to enhance their mental or physical capacities respectively. One type of return which is fairly concrete, but not strictly material is that of a parent bonding with their offspring. MA initiated play to bond with DB and PA (A thirty something mother) likewise started playing games to bond with her son; Investing sense of identity (the perception that middle aged women are not game players) for the return of a closer relationship with their progeny. MA says, during a discussion of Final Fantasy VIII (Square 1999): *"...one day he asked me to get him through... he was really frustrated because he couldn’t get through a bit. You know, he said, ‘Mum I can’t do it’, and he didn’t have any other games, he didn’t have anything else he could play. So I sat there. I said ‘Look. When you go to school; if I have time; if I don’t have any jobs on... That was it. That was my downfall <laughs>”*, which clearly shows that she was playing in order to engage with her son and support him as a good mother, engaged in her son’s interests.

So these cultural and material investment/return relationships suggest that users are seeking to achieve some type of return from investments; that the cultural and material costs must be outweighed by cultural and material (or at least concrete or explicit) returns in order for the individual to engage with a particular offering.

I am carefully avoiding referring to individuals' engagements with individual games as it seems that these relationships can be applied to game hardware platforms, genres of games, game series, individual titles or even parts of games. For example KA expressed

that she enjoyed Super Monkey Ball (Amusement Vision 2000), but only the multiplayer minigames as an opportunity for engaging with peers, not the main, solo, action-puzzle game offering.

K.A.: Super Monkey Ball's great, because it just gets lots of people involved in doing really silly things. It's really easy to give [younger relative] for her to just mess around with. It's not even... it's not very complicated.

J.S.: Well have you played the single player missions up to the really hard ones?

K.A.: <laughs> I can't get past the easy ones, let alone the really hard ones. We need to get Super Monkey Ball 2.

J.S.: What for the... just for the extra mini games?

K.A.: Yeah.

J.S.: You think Monkey Ball's more about the mini games than about the actual central game?

K.A.: Yeah, because the central game is pretty repetitive and boring, with... you know, you do it a few times and you master it and it's done, where as the mini game you can actually, sort of, play lots of players and... party type thing going on.

While HA, HB, and OB were under the impression that the Nintendo Wii as a system was designed with a control mechanism which did not suit their 'hardcore' demand for precision, and were thus not as keen on exploring games for that platform as much as other, more traditional, button and joystick systems.

4.4. Net value after summation

It might seem that we could view an individual's definitive statement concerning the feature which represents their failure to engage with a particular offering as the cause of that failure. This might not be so. If we look at games which are marginal in the mind of the respondent, exploring the pros and cons of that title, allowing the individual to express what they liked about it and what they disliked about it, we can see that they are implicitly summing these pros and cons. Only if the cons (costs, investments, negative factors) outweigh the pros (attractors, pleasures, returns) will the player avoid the game or cease playing the game. For example in the case of CA (a twenty something male) and his stance towards Final Fantasy VIII:

CA: *There were some serious flaws I think with the… erm… the game. VII was quality IX's good, but VIII I don't really know why it's so poor.*

JS: *Do you think it might be the graphics?*

CA: *The graphics do smell a little, but I dunno, when I first played it I did really quite like the graphics. I think there were a lot of bits in the game which were dull, like the fact that you couldn't skip the spells or the summons, and some of them went on for like 2 minutes. The fact that you had to fight this dinosaur really early on, and the only way you could kill it was to attack it with the same spell with just one person. I was like 10 minutes of actually doing this thing all the time, and it wasn't enjoyable it was ted… just peed you off, and there was quite a few bits like that, where it was just like monotony, where it felt like it was just filling up time rather than just trying to progress the story in any way, or actually get*

you somewhere, and there's quite a bit like that. Good intro though.

JS: *I know what you mean; the graphics were very sexy sometimes.*

CA: *The card game I didn't really get into and like… The sub-game with the cards, whatever it's called.*

JS: *Can't remember now. Yeah, the way you could change the rules in it as well.*

CA: *I'm sure there was good bits in there. I did play all the way through, but it didn't catch, grab, you know, engage me in any way like Final Fantasy VII od IX did. You know maybe the characters weren't even good enough.*

So while many aspects of the game were seen as costs (possibly relative to other games in the series; a relationship which we will expand on in later chapters), such as the unskippable cut scenes, the repetitive combat, and the sub-games, the overall effect was one whereby he did engage with the game to the extent that he did play the main narrative to completion.

We could illustrate the relationship I have developed thus far with the following equation:

$$\sum_{i=1}^{i=n} F_i w_i = V$$

F = Salient feature of note

w = Personal weighting to feature

i = Feature index

V = Overall value felt

So the prospective player is noting particular features (F) they are weighting those features according to their identifications (w), and the sum of these identifications (sigma) determines the overall value (V) and hence engagement. One aspect which is not explored theoretically (and perhaps presents some opportunity for modification of the theory) is the value of the feature beyond identifications. We might consider this value to be a sense of quality. For a simple example, consider the graphical quality of a game (not the graphical style). So if the game were to glitch and reveal graphical errors on occasion, this fact might weigh negatively or if the game efficiently and cleverly used the full extent of the platform's graphical capabilities this might weigh positively. This weighting must be summed with how much the player cares about the graphical sophistication demonstrated by a game. However this quality weighting is under explored in this thesis, and is implicitly considered when considering a player's value judgement relative to their sense of identification.

Obviously we are really dealing with qualitative value judgements rather than explicit enumerable quantities, so the above equation could never be resolved, but illustrating it this way might help some readers visualise the overall meaning of the key hypothesis of this section; that a player's engagement with a game can be considered a sum of their engagements with salient features of the game. In some ways this summing is similar to Information Integration Theory (Anderson 1962), where the values of stimuli are integrated into an overall impression. However where there is an implication in Information Integration Theory that this function represents a simulatable model in our case we are not making any strong claims to any sense that the context dependant, momentary, feature-wise valuations represent values which may be simulated. That is not to say that such a simulation would be impossible, but the evaluation of an

individual's current orientation toward or away from a salient feature is likely to be a rich and complex sum, difficult to instantiate numerically or even ordinally.

Visualising this hypothesis by means of a diagram may also help:

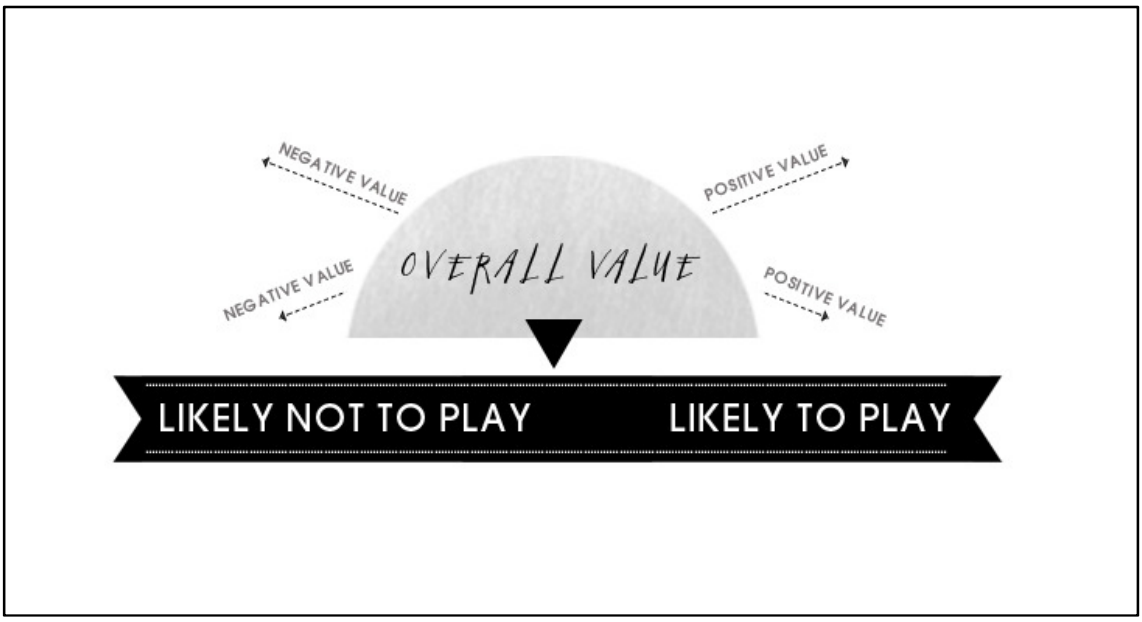


Figure 2: Visualisation of summed value judgements

Here the arrows are the salience of the features of various identity weightings (expressed by the sizes and orientation of the arrows).

In order to understand the equation and model above I feel it is necessary to reiterate the concept of interchangeable indicators. That is in this discussion of theory I have avoided listing all of the types of costs, returns, and identifications as they are innumerate and no attempt was made to record all the various features in this research. I could retroactively list all that I have encountered, but this may result in the reader misunderstanding the purpose of such a list and assume that it represents a complete coverage of the possible points of identification. Rather I will state that any point where

a player indicates that they did not like or would not play a game for a particular reason is a cost (and most likely a social or cultural cost) and instances where they have sought out or enjoyed a game for a particular reason is a return (aligning with their culturally constructed personal sense of value). Examples of such features include such as the game mechanics; the graphical style, the back story; the narrative; the challenge type; the opportunity to play with others; the game control system; the aesthetic of the hardware; and so on. As suggested, even apparent material costs are weighted according to a culturally formed sense of identity. For example time appears to be a universal cost, but is viewed differently by different individuals. Respondents such as AB (a man in his 30s) and AA (a man in his 20s) engage in play when they have plenty of the resource available (valuing other activities more highly); NB (a woman in her 20s) would not invest any time in play, choosing to spend her spare time engaged in other activities; while HA, HB & OB do not mention the cost of investing time explicitly, appearing to invest a great deal of their spare time in playing games as a matter of course. My hypothesis is that AB and AA, being committed students, feel that they should be investing spare time in less 'trivial' pursuits; NB explicitly states that games are only for boys and that none of her peers play; while HA, HB and OB are self confessed 'gamers' so it might be expected that they will invest time in playing without giving too much thought to that time. Another example where a time commitment is not expressed as a cost is where JA states that he seeks games that require an extensive time commitment to soak up 'down time' while he is working away from home. In this case the time required to play a game effectively is a salient benefit or return.

So partially resolving the above equation for AB, *F(time)* is a highly salient feature, *w* is strongly negative, and the product of these is a negative value to add to the sigma sum. For JA in the context of work breaks *F(time)* is a salient feature, *w* is quite positive

which produces a positive value. HA, HB, and OB *F(time)* is of very low salience, but negative *w* (playing one game eats into the time available to play other, better games) producing a slight negative value.

It is interesting to note that NB mentioned that none of her friends play is an interesting one to consider. We might suppose that many of an individual's cultural stances are formed relative to their peers or that friends are selected with similar cultural perspectives. So an individual with no game playing peers would be less likely to be a game player. As will be shown in the later analysis of the way in which players engage with offerings, the relationship between an individual's stance and that of their peers is not quite so simple.

4.5. Summary of identification to features

In terms of the greater theoretical positioning of this hypothesis; while others have included concepts of identification in their published works (e.g. (Walz 2003)) the concept of the net worth of summed value judgements seems novel in the specific study of videogame play. Indeed the majority of theories relate to how users play games as discrete, stand alone activities. For example Walz applies concepts of Rhetoric to the act of playing a game, with the designer persuading the player to identify via the medium of play, using Fritz's 'Functional Circles' (Fritz 1995) to support this approach, but only in the context of active play. The hypotheses I am presenting here does not focus on the act of playing alone, rather there is a process of identification which may begin well before the game is encountered, and pass through play, and into reflection about past encounters. While it may be possible to conceive of this process or progression as rhetorical, in order to do so we must assume some understanding of the intention of designers, which is beyond the scope of this programme (which set out to understand how players receive and engage in games as the only focus).

What is occurring seems to relate to parts of Cooley's 'looking glass self' (1902) whereby a prospective player is judging their own actions (and attitudes) as they might judge others, as if judging their reflection in a mirror. This idea that the player is both 'performer' and 'audience' simultaneously sidesteps problems with such concepts as Goffman's dramaturgical perspective (1959) allowing us to consider solo activities and general opinions. That is, while a dramaturgical view assumes that individuals assume the roles of 'performer' (actor) or 'audience' (designated observer), accounting for the social structures that can be observed in the performance of these roles, and the identities they engender, in using a more self-reflective stance we have a way of considering culturally directed activities where the individual isn't planning, performing, or observing a role performance and is instead acting alone in a non-social context. That is not to say that self-reflection can only apply to solo contexts, but the observation that not all human activity is necessarily a social performance forces to us consider a greater number of cases than those of a perspective which seeks to unpack the multiple roles (and potentially identities) performed by an individual in different contexts. A more extensive exploration of this exploration of social contexts, cultural values, and identities is included in the section relating to the relationship between this thesis and other knowledge in the literature review chapter of this thesis.

4.6. Summary of key theoretical categories introduced in this section

1. Players ascribe value to personally salient features of games

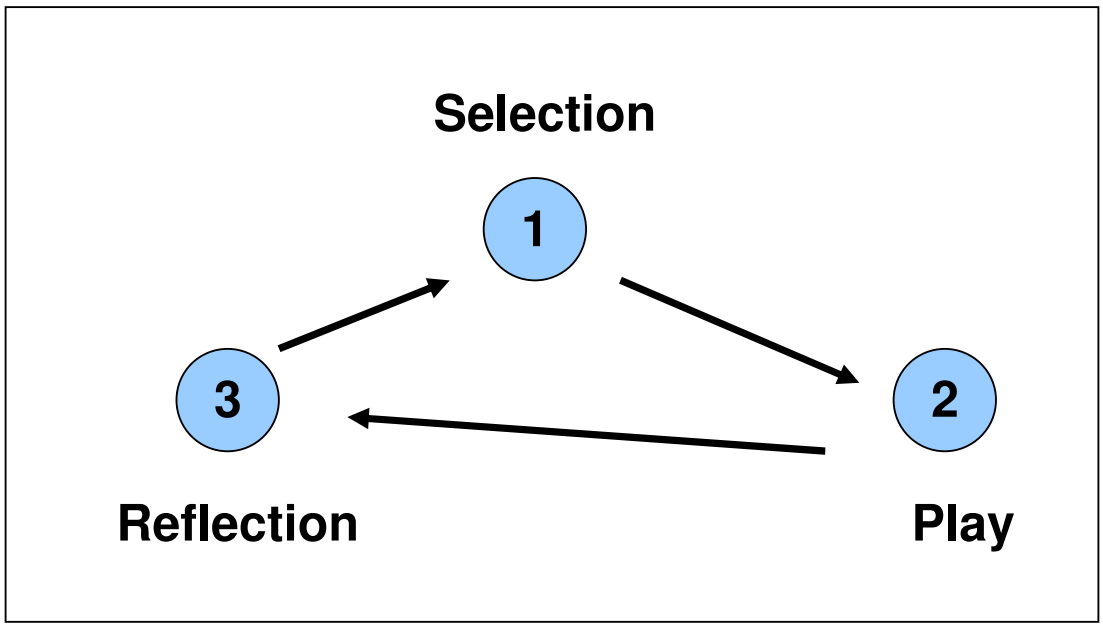
2. **The salient features are valued according to how much the player feels they are the 'kind of player' who would or would not engage with that feature.**
3. **These value judgements are summed, resulting in an aggregate or net value of the offering to the player.**
4. **This net value directly drives engagement positively or negatively.**

5. Second theoretical sub-category: Process of engagement (selection to reflection)

This chapter sets out the memoed theoretical ideas that explicitly deal with the cyclical process of engagement and re-engagement. This chapter will show that a player engages with a game not as a single 'pass or fail', but rather discovers their degree of engagement as they select, play, and reflect on their game playing experiences. I will highlight some categories that relate to what players select for (and thence hope to find in play, based on their reflections on previous experiences) and how they might gain this knowledge.

5.1. Overview of the phases of engagement

As suggested in the previous section, there is a simple progression which is of interest to us; a potential progression or process of engagement. We can break this process of engagement down into 3 gross, potentially overlapping phases. There will be a period before the player has played with a particular offering, there may be a period of playing with the particular offering, and the player would then reflect on this experience. That is it is the contention of this chapter is that the process of engagement can be formulated as 3 distinct phases.



The phases presented here then are then:

Where:

- Selection = before hands-on interaction
- Play = actual hands-on interaction
- Reflection = evaluating a game as played

The above progression is cyclical and implicit. Selection may not always be where a potential player forms a deep impression of an offering, but there will at some point be a decision where they will explicitly decide to 'have a go', and as such they will have formed an impression that they will find the experience worthwhile (see previous and following sections), so we might say that they have engaged in a selection however brief. For example where a player is in a situation where they are invited to play a game as part of a broader social gathering, they might not be evaluating the properties of the

game and what those properties might represent in an extensive manner. As with the previous section, this process could apply to any offering from hardware platform to game level, but more on this below.

Reflection is simply the process of looking back, either tacitly or explicitly, relating past experiences to possible future experiences. This is apparent in the data whenever a subject reports their interpretation of past experiences. While this might seem obvious, as surely in interview most of the conversation will relate to past experiences, occasionally a subject will use distinct reflections and reflections on reflective reasoning to support the discussion. As a clear example of reflective reasoning HA, HB and OB explained a shift in orientation away from the Nintendo Wii, from amused by the novelty offered to annoyed by the 'family' 'mainstream' image, appears to be their explanation of a reflective adjustment in engagement: *"Nintendo have sold out I think, because the way they advertise it" and "They wanna just make money to families; to group things. It's not to the gamer anymore." and "It's like a console now that would normally be played on a Sunday when the family sit down and play it together. It doesn't seem like a gamer would sit down and play it. You know, like a 'gamer'. A 'gamer' wouldn't play a Wii"* This example shows that the reflective phase is not simply an internal, personal one, but can be influenced by external agents and forces (such as the advertising campaigns promoting the game or system as a product). Other reflections which appear to have occurred beyond the context of the interview were where JA explained how he had deliberately undone a cheat performed by his girlfriend (which had the effect of allowing him access to all the 'unlockable' content) on his favourite driving game. He relates how he became dissatisfied with the lack of challenge and craved the sense of achievement gained by overcoming the game challenges as designed and unlocking the content fairly. *"That gives it a really small shelf life as far as I'm concerned. It's like with*

Project Gotham I nearly got to the end, well I got over three quarters, and then [KA] says "Oh well if you just do this, you can unlock all the cars." I got massively disinterested in it after that. It's only recently I started picking it up again just for the driving element.". This act seems quite reflective and supports the theory that players take their impressions of games as played in the past and follow them through to games or play sessions yet to be played.

This cycle of engagements might also be seen in light of the different features of the experience I have encountered players paying attention to. So a player who denies that videogame play is ever something they might engage in (e.g. DC) is obviously not going to actively learn a great deal about differences between hardware platforms or the games available for each platform, whereas self identified 'gamers' will potentially have knowledge and expectations relating to many games, platforms, contexts and so on.

In order to explore this process I will take the memoed factors of each phase and explore them in more detail in the following subsections. The phases are not purely linear, as players may well be reflecting on the game as they play it, which will have them forming an opinion of what the game might have left to offer, and thence deciding whether to continue playing or not (a form of selection).

5.2. Selection

The mechanisms employed to select games are complex and depend on the particular individual and their sense of identifications. Tying the cycle of engagements to the sense of identity will be explored later in this thesis in the section dealing with the theory of negotiation. This subsection and the subsections relating to playing and reflecting will focus on generalized patterns and procedures employed by individuals as they engage with a proposition.

Selection itself can be broken down into broad strategies, situated within contexts.

5.2.1. Selection of the activity in general terms.

Obviously some people seem to eschew gameplay while others do not. However this is not simply that some individuals see **all** 'electronic entertainment' as worthless, rather it seems that the current mass of possible experiences can be rejected. For example HC rejects game playing in general, feeling that the time her son spends playing games on his Nintendo DS is potentially damaging in some way; however she feels that the experiences currently available for the Nintendo Wii (including Wii Fit) may be of some merit, describing the platform as being "more inclusive". Similarly DA in asserting that gaming is for lazy people, but the Wii may have some merit, due to the extra physical dimension of the interface, is similarly an expression that the general activity of playing games is not entirely rejected, but rather there is a rejection of games in their current or past forms: "Could be a hobby; could be out of boredom; could be out of laziness. These are the kind of words I associate with it." and "...ok Nintendo Wii? I can see why people might be fascinated with that, and I can see the attraction there, because you need to physically move and it's challenging, but I don't see why people would find it interesting to sit in front of a screen pressing all sorts of keys." So we can say that in order for a potential player to select from a number of different offerings they must first be able to identify (and identify with) a perceived potential for agreeable or worthwhile experiences, such as the physical or 'inclusive' experiences expressed above.

If the potential player is capable of allowing for the possibility of their engagement with a game or game-like product, then we can examine how players find the games that they might enjoy. In this respect there are two types of selection factor: **what** and **how.**

5.2.2. What 1: Selecting explicitly for a context or situation

Games are not played in a laboratory environment they are played in a real-world context. Potential players often account for this context and select games based upon it. For example JA (a male in his 30s) states that he plays games which require a sizeable time commitment when he is working away from home with just a laptop for company, whereas when he's at home with his girlfriend he would play games which he can more easily stop playing if the social situation demanded, without losing too much progress.

> *JA: If I've got nothing to do for a day on a rig, then I'll just load them up and play them for a day. 12 hours, until my shoulders don't work anymore. Sitting there at the desk <acts out exaggerated hunched playing position>. I haven't moved for 12 hours.*
>
> *JS: Yeah, but, what? You're saying… you do that with a console game? You play different games on PCs and consoles.*
>
> *JA: Well to some extent it's the environment I'm in, because here at home the environment is far more social. You come round. [My girlfriend] is here. I'm always interacting. Where when I'm on a rig I can be on my own, completely, for 12 hours.*

Similarly CB (a woman in her 30s) seldom plays games on her Nintendo Wii alone, stating that she primarily bought the console as a social device, as one might a board-game: "I don't really play on it very much. It's more a social thing I suppose. If someone came round who wanted to play on it, then it would go on then.". These are examples of a potential player considering the potential, eventual context of play and selecting accordingly.

The selection shaping contexts I have encountered in this research project could be said to be either social (must be able to play multi-player, must be easy to pick up, or must

not alienate those I might play with) or anti-social (for a context of minimum distraction, and opportunity for concentrated focus or deeply engaging to block out annoyances or distractions). An example of the latter is BA's assertion that he likes to become immersed in game play to escape the stresses of daily life, so he would select games which would draw him into a fantasy world. "...you are immersed in the game so much you are actually in the game. After an hour of gameplay you're actually there, you're not actually where you are in reality. You get transported into the game." and "I want a game to provide me with an escape from reality, and I need that escape extremely badly on many occasions.". Contrary to a fairly popular view, this motive to play doesn't seem to be very common. While researchers such as Brown and Cairns (2004) take the term 'immersion' as a starting point, as if it must be the most important motivator to play, the word was only used by this one participant, unprompted, in the entirety of this current research programme, suggesting that the majority of game players might not be seeking an immersive experience. Rather many players are seeking a social experience, something they can share with their friends instead of blanking them out by 'losing themselves' in the game. One feature of a deeply immersive or extremely engaging experience is that of the sense of time compression (Csikszentmihalyi 1975), where the subject feels that much less time has passed than really has. Some subjects reported that while they might experience such time distortion playing videogames, they would prefer not to and as such do not engage in gameplay activities which may result in 'immersion' or 'flow', but would rather engage in gameplay activities which are more 'casual' or less involved. For example OA expressing one reason that he doesn't play so much these days says "... or realise that you 'suddenly' spent 6 hours or 3 hours on something, that could have been spent on something more useful."

5.2.3. What 2: Selecting specific features

As suggested previously most of the products of this programme are interrelated, so obviously in selecting a game for a specific context we might expect certain features to be more suited to some contexts than others. Whatever the contextual considerations players select games based on specific designed features. These features are innumerate. Any design decision can be a selection feature. Most commonly these would be factors such as style and perceived quality of the graphics, the game mechanics, the promised activities (different from mechanic in that we might say that 'move your avatar left and right to collect tokens' is the mechanic where 'help Mario to save the princess' is the activity), or maybe the challenge type (does it require intellectual prowess, dexterous skill, lateral thinking?). For example KA prefers games with a 'cartoon' graphical style while JA likes 'driving' 'cars' in a race (but not 'flying' 'spaceships' in a similar manner), and BA doesn't want to engage in gaining the requisite dexterity to play games which require sophisticated hand-eye coordination, but would rather engage in intellectual puzzles.

As I will show later, mapping these features out, as design patterns say (as Björk et al. 2003) would be a potentially infinite activity, unlikely to reveal much about the experience of players as individuals, as players appear to be vague in their perception of features of a game.

5.2.4. What 3: Selecting a familiar face

Selecting games according to familiarity can be broken into two sub categories; game related and non-game related.

With respect to non-game related factors, players might select a game which draws thematic influences from other areas of life, such as sports, films, books, television programmes and so on. If a potential player has knowledge of the source of this subject

matter they may apply their identification with this source to inform their potential for identification with the game. For example AA told me that he enjoys music so would seek out 'rhythm action' type games such as Rockband; IA (a twenty something male) is a football fan so he would seek out football games such as the Pro Evolution Soccer series or football management games; MC and JA enjoy playing with games which involve simulated driving of cars based on real models in somewhat realistic environments (or at least tracks intended to represent aspects of the real world); JD plays many games with themes based on toy licences; while conversely OA (a thirty something man) doesn't like fighting or pugilism so he doesn't find an appeal in beat-em-up style games; and so on. Recognition of this aspect of selection by identification by the games industry might be said to be the reason behind a great deal of the releases each year that draw their themes from non-game intellectual property (IP) such as blockbuster films and popular sporting licences.

The other major selection by familiarity category is that of selecting games based on their similarity to other games. That is games with similarities such as themes, interaction styles, or (for self professed gamers) a specific provenance are pre-judged based on an individual's experiences with games they have encountered in the past. So CB seeks games which are designed to be multiplayer based on her experience with certain Wii games; JA showed interest in GT2002 due to the thematic similarity to Gran Turismo; and CA and HA, HB & OB expressed that they would seek games by familiar, respected development teams, as this quote from CA illustrates*: "A lot of the time you buy what you know, a general thing you know are good or from a company you know makes decent games. I like most of the Codemasters' stuff, and I think most of the genres they do, they do well, so I'm more likely to buy Colin McCrae than I would*

another rally game that wasn't from them, because I know that they do well thought out, very well playtested games.".

This selection method by familiarity is closely tied into reflection, but stated simply: players will seek to repeat experiences they have enjoyed and avoid experiences that they haven't enjoyed, and finding games with features in common with the pleasurable games is one strategy for doing this. Often players will refer to 'genre' as a means of talking about clusters of games with similar features. This is to be expected as the principle of applying a genre to works with similar features is common in many forms of media. I will not enter a deep analysis as to the precise way in which genres of videogames are understood or formed but I will point out that some genre labels have become common parlance even amongst those who would not identify with game playing as a hobby. The following quote from CA shows how a player might select games based on genre that they feel they can identify with: *"I guess I kind of go with genres I know I like. Like, I would like to buy Zelda: The Wind Waker, because I like that kind of game, and the way it plays, and I've played the ones previously and so I know what I like and I know that it's the kind of game that I'll enjoy, and, you know, I suppose it's a similar thing as with Final Fantasy. You know what you like and you sort of read the reviews and you think you'd enjoy a similar game, so you get the sequel or the follow-up."*

The final part of this quote demonstrates another shortcut for a player to find a game that they might find engaging by selecting the familiar. Once a player has played a game that they enjoyed they might try to extend or repeat that experience by seeking games in the same series or even by obtaining 'expansion packs' for the beloved game. This way they hope that the sequel or expansion extends the experience in a suitably agreeable way.

5.2.5. How 1: Trusted opinion

As the last section was part *what* players select (games with familiar IP) and part *how* games are selected (by seeking games in the same genre or with similar features) we will explore some methods people use to find the games they might enjoy.

One obvious way players find potentially engaging games is by polling the opinions of others. That is they take the experiences of those that have experience with a particular offering as evidence indicating whether that offering would indeed be the kind of experience they would engage in. While the most obvious of these strategies to gather such trusted information may include discussing potential hits with peers, this is not necessarily a universal strategy. For example GA and JB (sisters in their teens interviewed together) claim not to spend time discussing the relative merits of various offerings with their peers (it is my impression that they must on occasion, in order to support the assertion that they gain knowledge of new games by swapping cartridges with their school friends, but such a topic of conversation is seen as a very low priority amongst their peers) rather they use other strategies to obtain potentially agreeable products, such as trading. Otherwise, personal experience shows that simply suggesting the subject in receptive company will result in said company extolling the virtues of their favourite game(s). Similarly I have overheard numerous conversations in public where groups in my vicinity have been discussing various offerings in some depth, including one memorable instance where a group of middle aged women were enthralled by one of their member proselytising the virtues of Crash Bandicoot (Naughty Dog 1996). I'm sure the reader will have similar anecdotes.

Other than ones immediate peers there are other sources of opinion. Reviews available in the media are one such source, but the degree to which such opinion is trusted depends on the individual's attitude to the source. For example, HA, HB and OB claim to

use certain online review aggregating websites to obtain a number of perspectives (for free), while CA claims to take magazine review comments and scores into account when selecting an individual title but with reservations: "Yeah, I mean, quite a lot of times I buy a game and I don't particularly agree with the review. I'd give it, in some cases, quite a lot higher or lower than they did, like Tomb Raider 2 and 3 and that. I didn't enjoy half as much as they seemed to."

Another type of trusted opinion is to form a relationship with an expert specifically for the purposes of obtaining recommendations. BA states that his major source of recommendation (in the absence of having many peers with which to discuss possibilities with) is the sales advice in specialist shops: "I go into the shop and ask the fellow in the shop. I'll spend maybe a couple of hours in the shop saying 'this is the sort of game that I like, what can you recommend?', and then they go through a whole 'oh you might like this - you might like that', you know; and that's how I ended up with the selection I've got at the moment."

5.2.6. How 2: Marketing/Hype

Another source of information which potential players use to find out about the features of available offerings is through the marketing efforts made on behalf of the producers. There seem to be two main types of marketing: Advertisements and editorial features.

While none of the subjects polled stated that they had obtained a game due to advertisements, the opposite did occur with the advertising strategy used by Nintendo being cited by HA, HB & OB as a reason they were playing on their Wii less. Though we could assume that the single comment by HC, that the Wii is more 'inclusive' (than other consoles and the games available for them) is due to an identification with precisely the same advertising strategy and imagery that HA, HB and OB were influenced by: an advertisement campaign which suggested that the Wii is a system aimed at 'casual'

gamers and families for the purpose of primarily social play, which was communicated by presenting groups of 'ordinary' people in 'ordinary' settings playing games together, occasionally discussing that experience, but with less emphasis on the game-screen than many previous forms of videogame advertising. That the influence of marketing arose only a couple of times may well be an artefact of our society and its attitude toward marketing, and the extensive use of interviews in this research programme, in that nobody likes to admit that they are swayed by advertising in general. Though we could also assume that people don't often form their opinions based on advertising, recognising that adverts are intrinsically hyperbole and instead preferring to use a more trusted source of information. One possible admission of succumbing to marketing efforts is in MC indicating that he finds out about offerings directly from the website of his favourite publisher. Sites such as these are clearly methods of marketing. To use the parlance of the advertising industry: the objective of these sites is to create 'a buzz' around upcoming products and to 'support the fan community' for products which have been released to the market. They obviously do not exist to provide the visitor with an impartial critique of the output of the company.

A less obvious form of marketing, but still obviously part of a company's hype generating endeavour, is the publication of various associated features in the specialist media such as interviews, company profiles or early previews. This is primarily apparent in the data as HA, HB, and OBs' interest in the provenance of a game; specifically citing a game of which they have some knowledge of the reported development process (i.e. developed by a small innovative team), which they feel would be worthy of their attention. The same group also state that they track upcoming releases, a source of information which is carefully managed by development and publishing companies to elicit maximum anticipation of an offering. As we will see later, this reliance on 'hype' may backfire when

the promises made by the producers of the game are not met or weaknesses are not highlighted in previews.

We could also view packaging as part of the marketing effort of the producers. Some subjects (i.e. GA & JB) did indicate that when purchasing individual games from a shop that they might use the packages as a guide to selecting potentially agreeable offerings.

> *GA: "I always judge them by their cover. I know you shouldn't do that <laughs>. If they've got good imagery on them then I'll pick it up and read it, on the back or whatever."*
>
> *JS: Yeah*
>
> *JB: "If you read the back and really like it then that's probably why you'd buy it."*

Other subjects will remember offerings by their packaging, presumably because they have gained knowledge of the title primarily from browsing in shops. The available information on packages is slight, but telling. Conceptual graphics showing the themes presented in the game are common, while selected 'screen shots' are usually found on the back along with a short description and perhaps a list of unique selling points. In the absence of any other input this selection method requires the potential player to identify with these few elements in order to obtain the game. This perhaps suggests the popularity of games with themes based on licences from other media, such as Doug (ImaginEngine 2000) (a game discussed with GA & JB) which is based on a cartoon series. It seems that if the subject identifies with the theme and are selecting games based on themes then they are more likely to use this method of selection than a potential player who is interested in some other feature of the experience (such as game mechanic say).

5.2.7. How 3: Association

An individual may form a biased impression of a game based on how it came to be encountered. Part of this is related to the individual *Selecting a Familiar Face*, where they encounter information about a game from a similar production company or developer and view the game in light of other products the individual has encountered from that same company. So a web surfer who finds an unfamiliar game on a known publisher's website will view that game in light of their knowledge of the publisher's other products even if the new game is far removed from any other offering from the developer to date (as an example we might ask if *Rockstar Games presents Table Tennis (Rockstar San Diego 2006)* might have received such a warm reception in the press, and the sales figures to match, if it had been *D3 Publisher presents Table Tennis,* even if it were the same game.)

A more common way in which a game might lose or gain favour by association is if it is found in the possession of another. Even without enquiring as to the quality of the title, the finder's attitude toward the owner will pull up or push down the finder's attitude toward the game. So if a game is found in the collection of a friend it will be viewed more favourably (or at least with more curiosity) than if it were found in a pile of games in a second hand shop. This is most evident in the actions of GA + JB where JB stated that she swapped games with her friends (as part of a discussion about how she might play Gameboy games with a friend):

> *JS: What, you play linked up games or something?*
>
> *JB: No we just erm... we trade games and stuff, and play them on the different...*

This method of obtaining games might be seen as a shortcutting of the implicit question suggested in the previous section, in that if there is a person who is somewhat culturally

and socially 'like me' who already owns the game, and presumably also plays the game (though not necessarily) then surely *I am the kind of person who would play this game*.

5.2.8. How 4: Ready availability in a context

Obviously, quite often players make no conscious decision to obtain a game, it is simply there; the only decision then is whether to play or not. The games which come free with mobile phones, computer operating systems, and bundled free with hardware upgrades; games which are provided as free entertainment in public spaces such as bars; or games which associates might be engaged in while sharing leisure time together are not pre-selected by the naive individual and that individual has invested nothing in obtaining it. As such, some of the material barriers are removed (financial outlay, time spent researching, time spent obtaining) and the only barriers to trying it are primarily cultural. Only if the potential player considers that there will be minimal loss in playing will they pick up the controls. For example KA found that in playing the games which came free with Microsoft Windows she could pass the time in a previous, boring job, but can't play games at her current job. JA tried the various games which he'd obtained bundled with PC hardware, even though they were games of genres which he doesn't identify with and wouldn't normally install and try. GA, while initially stating that she doesn't play games, later admitted to having played Snake on her mobile phone.

One common and interesting version of this simple play/don't play decision is where others are already engaged in play and invite the prospective player to join them. This then complicates the decision somewhat as while they might well be the kind of person who would play this game (and if it is a group of their peers rather than say the neighbours young children then they probably are in some way), they will also need to consider their status within this group and the nature of the game on offer. So my personal experience of encountering a Nintendo Wii with Wii Sports (Nintendo 2006)

while on a weeklong break at a holiday camp, with 8 people between the ages of 25 and 35 in the same chalet, demonstrated to me that in the right context, with the right interaction method, and a game with just the right level of competition potential, might result in an enjoyable play activity for most present. I suspect though that if the game had been more competitive, had a more 'traditional' interaction method, or if the pony trekking facilities were still open, several of the party would have drifted off and found something else to do much more quickly than they did. Another example of this is the family game, such as GA and JB stating that they played Who Wants to be a Millionaire on PS2 (Eidos 2001) with the family at Christmas time, a time traditionally set aside for group family activities such as board games or charades. Though, conversely I am aware of no anecdotes of families gathering round for an 8 player tournament of Micro Machines 2: Turbo Tournament (Supersonic Software Ltd 1994) which would be less easy to describe as a 'family' game when compared to quiz games such as Who Wants to be a Millionaire?.

5.2.9. How 5: Trying out

Although trying out is not completely distinct from play, it has been reported as a discreet stage of engagement in the past (Salisbury & Fields 2004) while the data also includes mentions of 'giving a chance' or 'having a go', suggesting that there may be a sense of trial in the user's mind. For example CA: "Similar game to that other one, Fantavision. I didn't like that either. I dunno, I think it's one of those games you've really got to play, like give it time on your own and stuff. Learn what you're doing rather than just trying to pick it up and have a go at it, and give up because you can't work out what the hell you're doing. That's what I found with Rez, I don't know, if I was doing it right or wrong.". The problem comes about in deciding when 'trying out' transitions in into concerted 'playing'. As I will show in the proceeding subsection, engaging with play is in a constant state of 'giving the game a chance', where failures to meet the user's

expectations or needs can 'break' the user's engagement at any time. However, in accounting for a user's sense that they are still selecting a game during initial encounters with actual play we can make apparent the process of negotiation which will be discussed later in this thesis.

Taking the assumption that, via whatever route, the player finds himself actually at the controls of a game (or a new machine, game delivery system, or some other ludic mechanism which the player has no experience of up to that point), it is apparent that the player is at this point purely evaluating the game against what their expectations are. These expectations will have been shaped by the various selection mechanisms employed and the player's summed value judgement about the activity. So for example CA relates having heard good things about Deus Ex (Ion Storm Inc. 2000): *"You probably give it more of a chance, I'd say, but I… Deus Ex, heard was really good, and I can't be arsed with that, I really can't. I've only played it to that bit. I suppose there is that, the same with a film, you give it more of a chance if you hear good things about it, 'cause you assume that all these people, especially if it's friends that tell you, that they know what they are talking about, but I don't do that to be honest."*. While he claims not to be swayed by the opinions of others, he does relate that there is a grace period, where the player is 'giving it a chance'. It seems that this is the final step in a selection process, where before this step the player is forming an idea of what it might be like to play the game; working out if they are possibly the kind of person who might engage in it, before actually 'giving it a chance' and presumably testing those expectations against the actual experience. Some data was collected with a subject (NA, a man in his twenties) trying games he had downloaded, but not yet installed and tried out. Neither of the games he selected were deemed 'playable' enough to continue with for more than 10 minutes or so, and he didn't have a great expectation to support a great deal of trying out. One game, Angels Vs. Devils (Enigman Software TBA), failed to deal with the

thematic elements in an interesting enough way, and the other, Söldner (Wings Simulations 2004), was slow to develop (a military game with a long 'boot camp' sequence) and was of poor quality (slow loading times and a number of bugs were encountered). NA suggested that he even game extra time to try the games out as he believed that's what I expected in the process of observing him try out new games, saying that he would have given up after a minute or so, uninstalled the application, and deleted the game from his disc: "What I would normally do now is press the escape button and uninstall the game", which he further expanded upon in the unrecorded post interview debrief. So in these instances NA has little investment of expectations and as such is demanding that the game prove itself to him immediately or he will become disinterested and will stop playing almost immediately.

Examples of where potential players become actual players through successful trying out are presumably all the games that a player would state that they do 'play' or have 'played'. Examples in the research of players actually successfully trying a game out are more difficult to show as I collected no data showing a successful set of initial interactions followed by a report of continued play. Perhaps the closest is the personal anecdotal experience of having seen novice players picking up Nintendo Wii controllers for the first time and enjoying the experience... though there is no evidence that they then went on to engage in this activity in any other context than the one that these initial experiences were part of.

5.3. Play

While researchers such as Aarseth (2003) have argued that play must be the central object of study for games research, this project has essentially settled on a study of the conditions supporting engagement in play. That is the actual act of playing is bound into a social psychological praxis which informs the conditions of engagement; the actual

engagement itself being a successful realization of the supporting factors of identification, expectation, context and so on. This is due in part to the differences in methodology, where the methodology used here might be said to be the first steps of a heterophenomenology of reported player experiences, Aarseth has traditionally focused on the artifact and their imputed meanings explored through personal play experience. That is much games research deals with the game and how it facilitates play while I have developed a theory of how and why players make the choices they do; what experiences do games provide vs what kinds of experiences are players seeking to engage in. These are two sides of the same question.

Approaching this problem from the perspective of the generalized player, I can state that the degree to which a player engages with a game is the degree to which they have found a game which conforms to the 'am I the kind of person who would play this game in this context?' question. This question could resolve to an entirely negative answer (No I'm not the kind of person who engages in playing the games I am aware of, in any context I can think of.), but anything other than a purely negative case will have a player finding features of certain games agreeable enough to engage in, at least sometimes.

Other conceptions of play which relate to such concepts as immersion or Flow are suitable for some players in some contexts, but fail to address players for whom such deeply engaging states of mind are deemed to be undesirable. For example OA, while being engaged by the novelty of a fresh graphical approach, interaction method or game mechanic generally avoids engaging in solo game play, as he feels that time he has spent doing so in the past (where he may have been deeply engaged) could have been better spent. He engages with games to learn about the creativity of others to become inspired, rather than 'wasting time' trying to overcome 'pointless' challenges. To study OA actually playing a challenging game might suggest that he could or would engage in

it. He might for example demonstrate the reported hallmarks of a Flow experience. However, left to his own devices he would not be engaged as he would not voluntarily initiate play with such a game. So if we were to study how videogames might induce Flow states, or how they might support co-located and online socialization, or how they might induce immersion, and so on we would need to study each of these hypotheses individually, in the knowledge that not all players will be seeking the type of engagement we are studying. Indeed Czicksentmihaly states that, with respect to the concept of Flow, that any activity is potentially a Flow activity, as long as the individual initiating the activity is initiating it as something that they really want to do (Csikszentmihalyi 1990)

Put simply, my theory of play is when a potential player has passed through the selection phase and has found an experience that is indeed the kind of game that this individual would engage in, may do so. Just as an individual will be selecting on multiple features of identification, it is the positive features that they will engage with, at least initially. So, as mentioned earlier, CB may be looking for a game and context within which she can have a fun experience with her friends. So as long as a game encourages friendly competition or collaboration, and she has friends present who want to join in (and there are no friends present who would feel alienated by this activity), then she will initiate some kind of game on her Wii; engaging with the identified positive features of certain Wii games which allow for social play.

Games, contexts, the space of available games, and indeed players are not fixed, so as a player may be engaged by a game in one state it is not given that they would be engaged for every similar state. A newer, better game might be obtained; the progress of the game might become too difficult, stale, or broken; a subtle shift in a group dynamic might mean that games slip down the hierarchy of social options; the player might feel that they have outgrown a game or might have simply satisfied their

immediate need and become bored for now. Playing across multiple sessions requires a positive sum of factors every time. Indeed even during one session, as the factors change the player's perception of the factors change and a sliding interpretation of whether the game is engaging will continue to develop. In extreme cases of Flow-like engagements the positive factors will outweigh the negative up to a point in time where the player is physically exhausted. In other cases the player will simply decide that they have had enough and that it is time to stop. This weighting of factors over time will be dealt with in the next chapter, setting out the way in which the engagement is negotiated. Why a player stops playing then, is simply when the weighted value judgement factors result in a negative sum. Some games have a strict narrative progression or story, some have a loose narrative progression (begin, develop, end), and some are potentially infinite, but these forms do not dictate when a player will finish playing. Depending on the nature of the shift in weightings over the course of the session this termination in play could be forever or until the next suitable context and desire arises, but will happen at any time the player feels that they would be happy to stop. So, say a game that breaks a covenant of trust (such as the Football game that changes the behaviour of the ball to favour the opposition) might be dropped forever, while a game that has been 'finished' in one configuration might be set aside at a suitable 'break point' until motivation to play it in other configurations arises, a player who is feeling fatigued and frustrated might cease until they have the energy to return; and a group might decide to engage in a different activity for the remainder of their gathering, not precluding the possibility of a return later.

As Selection rests on the infinite variability of human cultural awareness (including the practices of sub-cultures and doctrines of societies) and how individuals identify with their roles within this sense of culture, play is predicated on this sense of identification

and is also infinitely variable in performance. There isn't a single design feature which will engage all players. However there are general features which could damage a player's engagement. Generally put many of these features could be categorized as poor quality, punitive play, or lack of fairness.

While issues relating to the quality of the graphics, sound, usability and general stability might well be noticed while the potential player is trying an individual game out (for example during the observation of NA he seemed to constantly weigh these features), quality issues might arise at any point in the interaction. If the game reaches a point where it starts to crash persistently; if the player gets stuck due to a bug (rather than by deliberate design) or if some other obvious quality problem arises while the game is being played in earnest then this fact will add a negative factor to the sum of value judgements. Consider the example of CA reflecting on why he disliked Bubsy (Accolade 1993) so much:

> *JS: What made it particularly bad, as opposed to other platform games?*
>
> *CA: It was hard, and for the wrong reasons. You sort of had to play and die, and die to get any good on it. You didn't really know where you were going, and it was glitchy. The control of the character was pretty poor, a bad character at that. It was slow in some places, then stupidly fast in other places.*

He includes 'glitchy' to refer to the poor quality of the game, and adds this to the list of negative features he felt the game presented.

If the player is repeatedly forced to perform the same unchallenging action over and over in order to progress to the next real challenge, or they are repeatedly expected to guess the outcome of events with few clues to allow them to surmise the outcome again

they may well apply a negative value judgement. For example BA becomes frustrated by games that force him to move his avatar through environments he has already explored to fetch things he has already found in order to solve a puzzle very much like the last one, so that he might continue with his explorations of the rest of the game (a common mechanic in the Resident Evil (Capcom 1996) series of games), which work against the features he values such as solving puzzles or exploring. While NA found that fighting multiple waves of very similar, but easy to defeat, enemies in Prince of Persia: Sands of Time (Ubisoft 2003) boring, potentially for similar reasons. JA mentions this effect in a different way, that of trying to get back to the point in a game with a structured progression when ones 'save game' is not available, in relation to an earlier passage in the interview where he bemoans forgetting how to play games while he is away for work for extended periods we then much later discuss the opportunity to 'dip in and out' of a game:

JA: I've left it alone and come back to it and I'll start again, "Go, ok just here, fight him, go here, fight that. Oh yeah, go to that room, shoot that wall…"

JS: Yeah, story driven games do that I reckon.

JA: Yeah, that's [unknown] not story driven and I can still dip into that.

JS: Yeah, I mean the whole thing like if it's a linear game, you start at point A and if it's crashed and you've lost your save game or something…

JA: Gone to another computer.

JS: Then you're starting at point A again, and you're like, "Oh no, not this bit again."

JA: "Let me get past it." Ah, but you need your save game..

This passage suggests that it can be very frustrating to overcome the challenges already overcome (especially if they are puzzles) and be presented with a story which has already been heard. CA complains of the 'randomness' of Bubsy (Accolade 1993), where through no fault of his own the player is 'killed' or 'sent back' regularly, which CA found intensely frustrating.

> *CA: Yeah, you know, you didn't feel like you were doing anything because you were good, but because… You know, you never got the satisfaction of doing a good jump or anything, that it was just so glitchy and random. Really that…*
>
> *JS: It was like, "Ah, phew, it didn't break this time."*
>
> *CA: Or, "That guy wasn't there this time when I jumped." It was a fairly terrible game. Terrible music, not very good level design, just falling for like 3 pages and then not knowing where you're going next. Fairly poor. It was a quid though.*

This last example of punitive play could also be said to be unfair. There are other examples of lack of fairness which are not necessarily punitive, but may be due to a design which does not apply an even balance where it might be expected. For example my own personal experience of playing a game an edition of the Electronic Arts' series of FIFA Football games where, at a high difficulty setting, I noticed that the ball favoured the computer controlled opponents; simply moving to the feet of the computer controlled players as if magnetized, preventing my own players from obtaining possession. As soon as I noticed this I refused to play the game ever again, even at lower difficulty settings where the 'cheating' might not occur. In this instance the game had broken a covenant of sports games; that skill is the determining factor of success and thus if the game can

bend the environment (in this case the illusory physics model) and overtly cheat then the player is forced to likewise look for unrealistic exploitations of the game engine, and thus the game stops being the kind of game the player thought they were playing.

Factors which might build up to encourage a player to carry on playing, assuming that they are 'in', having identified with the activity and initiated a play experience, seem to be quite complex. The challenges provided by the experience were commonly referenced by subjects. Striving to 'beat' a game is a key factor for some, and if we assume that Czicksentmihaly's (1975) thesis relative to challenges is reasonable, potentially a key factor in having players have 'one more go'. Challenges exist at different levels and are of different types though. Not all types of challenge will engage all players in the same way, and the variability in the skill of individuals will determine if they become bored (too easy) or frustrated (too hard). It seems that whatever the challenge many types of engagement are related to a sense of progress with players gaining skill, gaining points, advancing a story and so on. This principle of progression however is not universal. When an individual is using game playing as a social locus or as a means of 'passing the time', moving through a game's narrative or gaining increased skills (or whatever) are of peripheral concern.

As humans behave in an infinitely variable way, with an infinitely variable set of concerns the only general rule we can apply is that if a person has identified an activity as worth doing they have a good chance of doing it, that is they have personally identified with the activity and possible outcomes they will seek it out and engage in it. If this activity is gaining a mastery or skill of a level needed to meet the requirements of a game or to defeat their friends or strangers; if this activity is in following a story progression and seeing how their actions influence it; if the activity is something to occupy their waking mind without serious effort to pass the time; or if it is to have a fun activity in which to

spend a few minutes with friends, then these are the types of games that will be sought and engaged with in these ways. Players might be frustrated by challenges, stories, 'pointless' play, or a need to socialize as much as they are engaged by these things, dependant on what they value and identify with, and what the specific contextual demands are. Not merely as a selection process, but as a play activity.

5.4. Reflection

A player might well have some conception as to what kind of activities they will seek out based on the kinds of activities they have engaged in in the past. Closely related to the process of Selection, a player's reflection on their past play experiences has a strong effect on their reasoning about their attitude to future offerings. Explicit reflections seem to rely on the gross, most memorably good or bad features of an offering. If a player has experience of playing a game and found it enjoyable, for whatever reason, then they might try to replicate or build on that experience by either playing that game again or seeking out offerings with apparently similar gross features. Conversely, if upon having played a game the player has no sense of net cultural worth they will avoid games with similar gross features. This negative case accounts for cases like DA who 'completed' Super Mario World on the Gameboy, but felt that, on reflection, there was no value in having done so. In order to avoid wasting his time on other valueless activities he decided that 'computer games' in general were not for him and would be avoided. That is not to say that an individual who comes to a conclusion such as this is some kind of ultra-rational being who looks at every potential activity in their lives in an instrumental manner, never taking up with anything 'trivial' or anything which cannot give them an obvious material return. Rather they do not identify with the activity or the outcome of engaging with the challenges (in the case of DA completing Mario) of a game. Finding, on reflection, that the cultural or material 'rewards' do not outweigh the cultural or

material costs. In cases where individuals have encountered many different offerings, these reflections on summed value judgements will become increasingly sophisticated. As the individual experiences an increased number of offerings they will be comparing these experiences on increasingly narrow sets of criteria. Returning to CA's thoughts on the relative merits of the Final Fantasy series is quite revealing of this point:

CA: There were some serious flaws I think with the… erm… the game. VII was quality IX's good, but VIII I don't really know why it's so poor.

JS: Do you think it might be the graphics?

CA: The graphics do smell a little, but I dunno, when I first played it I did really quite like the graphics. I think there were a lot of bits in the game which were dull, like the fact that you couldn't skip the spells or the summons, and some of them went on for like 2 minutes. The fact that you had to fight this dinosaur really early on, and the only way you could kill it was to attack it with the same spell with just one person. I was like 10 minutes of actually doing this thing all the time, and it wasn't enjoyable it was ted… just peed you off, and there was quite a few bits like that, where it was just like monotony, where it felt like it was just filling up time rather than just trying to progress the story in any way, or actually get you somewhere, and there's quite a bit like that. Good intro though.

JS: I know what you mean; the graphics were very sexy sometimes.

CA: The card game I didn't really get into and like… The sub-game with the cards, whatever it's called.

JS: Can't remember now. Yeah, the way you could change the rules in it as well.

CA: I'm sure there was good bits in there. I did play all the way through, but it didn't catch, grab, you know, engage me in any way like Final Fantasy VII or IX did. You know maybe the characters weren't even good enough.

The conversational style of the above quote, with CA and myself sharing our experiences of Final Fantasy VIII is an example of how reflections are socially guided as well as being an individual's personal cultural evaluation. Discussing the merits of different offerings and types of offerings amongst peers may well 'pull up' or 'push down' an individual's interpretation of their activities to some degree. These 'peer reviews' will be added to an individual's knowledge base they may have built up based on their own experiences. Similarly, and in attempting to relate their own experiences to their peers a player might come upon realizations of a positive or negative nature further influencing their interpretations of their past activities.

The above example suggests that we should view all of the data collected in this programme of research as examples of explicit, expressed, reflective thoughts. Each interview entailed the subject reflecting on their choices, formulating post-hoc justifications of their current position relative to their experience of gaming; looking for examples that illustrate these positions; phrasing these examples in a manner which they feel is acceptable in the context of the interview situation. This final feature of explicit reflection within an interview context means that in analysing the data I have had to account for the context of the interview. For example interviewing GA and JB both together, as a 30 something man, friend of the family, with another 30 something female 'chaperone' (by default) relative in attendance, raises a number of socio-cultural questions. How freely expressive will they be to myself as an adult man who they might perceive as being from their parents' social group with these other individuals in attendance? It would be easy to logically elaborate on their statements, but rather the

comparative nature of the GT methodology has provided some insights into their positions and motives. For example that JB trades games with her school friends, but says that she does not talk about or discuss games at school:

JS: *You say you swap games with your mate on your Gameboy and that... you don't really chat about it at school with anyone, about what the good games are and what the bad games are...*

JB: *No, not really.*

This observation might suggest, with the theory I am proposing here, that while she is the kind of person who would play the occasional game she is not the kind of person who would enter detailed discussions and analyses of games with her peers; the trading then is a way for her peer group to share games that they have enjoyed without being seen to be the kind of person who would be entering into deep analyses of game offerings. We can see the opposite in the case of HA, HB and OB, three post adolescent, self identified gamers, for whom the ideas behind a game and how their choices relate to those of their peers are important factors in engaging and will be discussed freely.

5.5. Summary of key theoretical categories introduced in this section

1. **Players do not engage with a gameplay activity suddenly, mysteriously, or spontaneously, without considering the context of that engagement**
2. **A process of engagement usually occurs which includes phases before and after actual physical game playing**

3. **Prospective players select gameplay activities based on such things as the suitability for a context, specific game features, or familiarity**
4. **Players discover suitability, features, and familiarity by methods such as polling the trusted opinions of others, engaging with marketing, associating the gameplay activity to others, by relative availability of the activity or product, or by actively trying the activity out.**
5. **The factors the player selected (and engaged with) are then constantly evaluated, in context throughout play.**
6. **When play is not physically occurring the player is explicitly and implicitly reflecting on whether the gameplay experience (or experiences with features in common with the played experience) as so played still meets the entertainment requirement it was selected for.**

6. Core Category: Negotiated identification of and with a sense of Cultural worth.

This final theoretical chapter presents the theoretical memos that tie together the idea that individuals will take up play activities that they identify with, and that there is a general process of selecting, playing and reflecting which shapes the summed identification over time, to formulate an integrated concept **that players' relative identifications with games are negotiated.**

In order to prevent confusion in my use of the pertinent terms, I feel that it is important to stress my intended usages:

negotiate

- **verb 1** try to reach an agreement or compromise by discussion. **2** obtain or bring about by negotiating. **3** find a way over or through (an obstacle or difficult path). **4** transfer (a cheque, bill, etc.) to the legal ownership of another.

"Negotiated" in the sense I will use it here is intended to both convey that there is a progression with a resolution (3), and to convey the sense that there is an explicit (with others) and implicit (with generalized others) discussion (1 and 2) involved in an individual determining if any videogame offering can be identified with and hence engaged in.

cultural

- **adjective 1** relating to the culture of a society. **2** relating to the arts and to intellectual achievements.

culture

• **noun 1** the arts and other manifestations of human intellectual achievement regarded collectively. **2** a refined understanding or appreciation of this. **3** the customs, institutions, and achievements of a particular nation, people, or group. **4** the cultivation of plants, breeding of animals, or production of cells or tissues. **5** a preparation of cells grown in an artificial medium containing nutrients.

society

• **noun** (pl. **societies**) **1** the aggregate of people living together in a more or less ordered community. **2** a particular community of people living in a country or region, and having shared customs, laws, and organizations. **3** (also **high society**) people who are fashionable, wealthy, and influential, regarded as a distinct social group. **4** an organization or club formed for a particular purpose or activity. **5** the situation of being in the company of other people.

"Cultural" in the sense I will use it relates to both the customs of groups of people, and that games themselves may be deemed to be artistic artifacts.

An excellent instantiation of this usage come from 19th century anthropology:

"Culture, or civilization, taken in its broad, ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society." (Tylor 1874)

This section, in dealing with individuals' evaluated and summed identifications may seem to be dealing with individual propensities rather than cultural values. It is my intention in this chapter to show that they are one and the same; that an individual's perception of the value of a game is cultural and formed as a psycho-social function. A review of the

literature shows that the idea that an individual's attitudes are to a greater degree social and cultural values is not a new perspective.

> *"In a very large and interesting class of cases the social reference takes the form of a somewhat definite imagination of how one's self – that is any idea he appropriates – appears in a particular mind, and the kind of self-feeling one has is determined by the attitude toward this attributed to that other mind. A social self of this sort might be called the reflected or looking-glass self:*
>
> > *"Each to each a looking-glass*
> > *Reflects the other that doth pass"*
>
> *As we see our face, figure, and dress in the glass, and are interested in them because they are ours, and pleased or otherwise with them according as they do or do not answer to what we should like them to be; so in imagination we perceive in another's mind some thought of out appearance, manners, aims, deeds, character, friends, and so on, and are variously affected by it."*
>
> *(Cooley 1902)*

Obviously, when Cooley wrote the above there were no videogames, there was barely even a cinema industry. However he noted that once so constructed, the 'looking glass self' as an ideal personal entity affects the individual's personal perception of action:

"Once formed and familiarized the ideal self serves, like any ideal only more directly, as an incitement to growth in its direction, and a punishment to retrogression. A man who has become used to imagining himself as noble, beneficent, and respected has a real picture in his mind, a fair product of aspiring thought, a work of art. If his conduct violates this imagination he has a sense of ugliness and shame; there is a rent in the

picture, a rude shapeless hole, shattering its beauty, and calling for painful and tedious repairs before it can be tolerable to look upon." (Cooley 1902)

So when I say that an individual is looking for gameplay experiences which when the individual asks "Am I the kind of person who would play this game." they might be able to answer in the positive we could relate this question to Cooley's concepts of the looking glass self and the ideal self. The following quote also from Human Nature and the Social Order will make this relationship between my observed sentiment and Cooley's ideas more apparent:

> *"A self-idea of this sort seems to have three principal elements: the imagination of or appearance to the other person; the imagination of his judgement of that appearance, and some sort of self-feeling, such as pride or mortification. The comparison with a looking-glass hardly suggests the second element, the imagined judgement, which is quite essential. The thing that moves us to pride or shame is not the mere mechanical reflection of ourselves, but an imputed sentiment, the imagined effect of this reflection upon another's mind."*

So when an individual asks "Am I the kind of person who would play this game?" they are also asking "If I play this game, what does that say about me?" and "If I saw someone playing this game, what would that tell me about them?". If any of these questions fail to match up to their own self-idea or ideal self then they are unlikely to consider it to be an activity they should be engaged in and will avoid it. So for example BA rejecting games which encourage somewhat realistic representations of murder (i.e. Metal Gear Solid (Konami Computer Entertainment Japan 1998)) is likely to be due in part to his not wishing to be seen to take pleasure in violent activities. Similarly DB's rejection of games with 'babyish' graphics is likely to be due to his emerging sense of adulthood, where to be seen to be engaging in activities designed for children would be

unacceptable. These sentiments then are expressions of the ideal self, so that BA will state with confidence that he, personally, doesn't *enjoy* the violence of Metal Gear Solid and DB will state that he didn't *enjoy* the graphical style of Final Fantasy VII, rather than that they feel that they will look bad if caught playing games such as these. While it is obvious to a student of videogames that there is no actual violence involved in playing Metal Gear Solid, and the depiction thereof is obviously unrealistically sterile and almost cartoonish; and that Final Fantasy VII is far from 'babyish' in terms of narrative themes and ludic complexity, certain elements have been identified by these two subjects as unacceptable with respect to their sense of ideal self.

As stated in the chapter above, which introduces the concept of summed value judgements, my theory is that for any single offering (game, genre, hardware platform and so on) an individual may hold a set of weighted sentiments of the type discussed above. These sentiments or sub- value judgements are not fixed but vary over time and by context, as discussed in the chapter which deals with the process of engagement. To explore how these value judgements vary is the purpose of this chapter, and is the central hypothesis of this thesis (that an individual's engagement with a videogaming offering is determined by a negotiation of values to a sense of net cultural worth), and the following sections will attempt to clearly map the negotiations involved in arriving at a net identification through the cyclical process of selection, play, and reflection.

6.1. Selection as negotiation of potential

As previously suggested, the space of potential gameplay offerings is not fully known by any individual, rather individuals form impressions of what offerings exist and what the nature of those offerings are from a variety of sources. These impressions are then contrasted with the sense of identification to determine if this activity is possibly one in which the individual feels that they can engage. The source of the information also helps

to form this sense of identification, and the impression of the offering might not be formed simply on surface features such as themes, graphics, or characters, but at this stage, for many individuals, these features are more important than they are at any other phase in the engagement. That is as long as computer or video gaming in general is an activity that the individual can, in principle, reconcile with their sense of identification. DC, DA and NB have all concluded that videogaming is not something which will provide them with any benefit that they can identify with and that gaming is 'for' other people: children, people who lack creativity, and "mainly for boys" respectively. As DA (a performing artist) says:

> *DA: Put it this way: I can't really see a philosophy or arts student play computer games all day.*

Investigating the attitudes of those who reject games is interesting. The general attitude is that games are a 'pointless' or worthless activity. In trying to find out why such people, as well as marginal players such as OA, AB and AC (respondents who expressed an interest in playing games, but expressed various levels of reluctance based on having other interests of higher priority) , are less inclined to engage in games as an entertainment medium relative to other activities, results in a number of justifications: Games are too time consuming (e.g. OA or AA); games do not provide any new knowledge or novel experiences (e.g. OA or DA); games are primarily sedentary (e.g DA or DC); games and gaming hardware are financially expensive (e.g. IA or AA); games do not allow players to express themselves creatively (e.g DA or OA).. These justifications can be viewed in two ways. The first view is that these sentiments are expressions of investments relative to returns; that in these negative cases there is no substantive worth in playing. The second is based on the observation that, some might view these 'investments', 'costs', or negative factors and 'returns', 'benefits', or positive

factors in the opposite light; that the pleasure of playing is a reward worth investing in. What differentiates, say DC's sense that games are anti-social with HA, HB, and OBs' experiences of becoming too involved in the social politics of playing certain online games?

OB: I used to play World of Warcraft quite a while ago; a couple of years ago now and I played that with a few friends... he <indicating HA> was playing it for a short time as well, but then he stopped... cleverly.

HA: My Girlfriend was going to leave me so I decided to stop that game. It's not a good game to play. Have you played it before?

JS: No. No, so many people in the research community that just live on it though.

OB: It takes up way too much time.

HA: Too much time.

OB: And when you reach the end of the game it becomes a job. That you have to do this and this to keep up with this, and then it gets all political with everyone else who's playing the game and...

Also

HB: Yeah I stopped playing Counterstrike when he <indicating HA> had a clan and I was in it, and he started wanted to get sponsored and stuff and I was like: I just want to play the game man!

These quotes demonstrate that in playing certain games, these respondents felt that the investments (engaging in meta-game social organisations) detracted from what they valued (the core experience of playing the game). It is the first hypothesis of this thesis that players must identify with the perceived net 'investments' and 'returns' in order to engage. However each individual views the factors from a different personal and social

perspective, which gives each factor more or less weight. I propose that this weighting is cultural and based on a individuals sense of who they are and what kinds of people would or should engage in different activities.

So in selecting a game (or games in general, or a particular console, or whatever), if a player's identification with the benefits is sufficiently strong while the costs are perceived as sufficiently tolerable, then there is a chance the player will engage with the game if they encounter it.

The following section examines a few examples of possible costs and benefits and how they seem to have been reconciled by different individuals for them to have arrived at their position; how they have essentially implicitly negotiated their position via a 'looking glass self' style interaction with the imputed attitudes of a generalised other.

6.1.1. Visual representation

DB stated that he couldn't engage with Herdy Gerdy or Final Fantasy VII because they were 'babyish', a criticism which this researcher has never heard levelled at either game before or since:

DB: *Herdy Gerdy. I don't really like it. My mum kind of likes it, so it's kind of her game. Not mine.*

JS: *So you don't like it. What don't you like about it?*

DB: *It's kind of babyish.*

Upon quizzing DB about Final Fantasy VII he suggested that he was upset with the main presentation of the characters, in that, again, for most of the game the characters are presented as 'babyish' (or we could say 'super-deformed' to use the English translation of the Japanese description for such a large head on small body style of character design). It seemed that for DB his adolescence and sense of emerging manhood were

not compatible with playing a game where the characters looked like small children most of the time, no matter how adult or 'sophisticated' the narrative, complex the gameplay mechanics, or well structured the challenges (which admittedly may have been strong attractors resulting in him engaging with the games despite the negative connotation of the graphical presentation).

Contrasting DB's failure to negotiate past the pitfall of super deformed characters is KA's attraction to 'cartoon' style graphical presentations. Being a 20 something woman who values 'fun' and 'being silly' in some of her leisure time she had found that she could do so with certain offerings available for her Nintendo Gamecube. While she might find other pitfalls or benefits once playing a game (see below) she would be drawn to a game if it had suitably 'cartoony' graphics. Games should be fun, cartoons are fun, and thus games with cartoon graphics are acceptable for a fun loving young woman to play, whereas realistic presentations of characters in realistic settings might not engender this sense of fun in quite the same way.

6.1.2. Thematic

The actual themes represented in a game may also be points of identification. At the simplest level this could be that sports fans will identify with games that attempt to replicate or simulate some aspect of the sport of which they are a fan. So Football fans will feel that they are indeed capable of engaging with football games (either playing matches or managing teams). Those that do not engage with the represented sport will not identify with the theme of the game and so any engagement with the game will be based on other factors.

For example IA considers himself to be a football fan, and hence seeks out football games to play. For him the accurate representation of the theme is very important. The graphics should represent the game as realistically as possible; the names should be

accurate; and the commentary should be as convincing as possible. As if he identifies so strongly with being a football fan, that only the most accurate representation of the sport in terms of kit, names, rules, competition structures, commentary will satisfy this identification.

On the opposite side to this sense of identification with a theme is the example of OA who states that he is not the kind of person who enjoys watching boxing, and as such is not the kind of person who engages with 'fighting' games (otherwise known as beat-em-ups).

> *JS: So of the types of games that you really just wouldn't touch...*
>
> *OA: I wouldn't really play a beat-em-up game anymore... it would have to be a bloody good shoot-em-up, and a simple shoot-em-up like Raiden, and it doesn't get much better than that, because that's just full on mayhem and I think that does actually get your adrenaline going quite fast...*
>
> *JS: Well shooting games and beat-em-up games are quite popular types of game, so, you know, why do you think people are attracted to them? Why do you think people play them?*
>
> *OA: Well fighting probably because of the machismo to go with it... I suppose people who are attracted to violence as well... I don't know. I guess I'm not the kind of person who would watch a boxing match...*

This is a direct statement of identification and requires little further explanation (he doesn't see himself as someone who likes violence or pugilism in any form), other than that elsewhere in our interview he expresses the sentiment that he engages with games for the novelty of the graphics and interaction. So we might suppose that he may engage with a sufficiently technically novel beat-em-up for a short period in these ways, but

otherwise would find the other features of such a game demotivating rather than engaging and would not seek them out:

> *OA: I can respect the amount of work that's gone into the inbetweening each pose and getting all the technicalities to work...*

6.1.3. Potential for time passed

That players select games in order to pass the time might seem like a trite statement, however there are multiple ways in which a game can be structured which will have a direct impact on the perceived time commitment. Even before a game is played the potential player may have in mind an impression of the time commitment required and this impression will be identified with as either a positive or negative. Essentially taking a cumulative interpretation of the other points of identification and then seeing the potential time commitment as an amplification of this stance. This amplification of identification is similar to the impression of a challenge as stated in the following section which deals with how players identify during play. Negotiating the value of a play activity via this function of an investment modified via identification is a key justification for many. Are they the kind of person who would spend their valuable time in this activity? For example AA indicates that it is difficult to justify the time to play; that he might manage an hour of chess occasionally. Is this activity going to last long enough and soak up enough free time to be valued in light of other investments? For example JA looking for games that will give him something to do while he is cooped up on site, at work for extended periods. Is this activity going to require too much investment, in terms of time, in order to get any other return? For example HA stating that he felt he had to stop playing World of Warcraft to keep his girlfriend from leaving him. While some videogame rejecters might see games as a 'waste of time' (e.g. DA) some game players see games as a means of 'passing the time' in the same way as one might play a puzzle in a

newspaper, while other game players are happy to engage as long as they don't have to engage in 'slog' activities in order to get out what they want; in that they want a sense of achievement, an advance in a story, or a fun social interaction say (e.g. NA relating that he got bored with a game that demanded that he fight the same monsters over and over in order to progress the story). That is to say, while we have been dealing with obvious points of identification up to this point, with potential players' senses of what things appear to be, this feature deals with what the activity means to them. These points are probably best illustrated with examples.

The two best examples to illustrate this point of negotiation are possibly OA and JA. To summarise much of what I discussed with OA I could say that he identifies with gaming in principle and would be happy to explore them briefly to so that he can feel that he is aware of the state of the art at present, but he feels that ultimately he should be spending his time in activities which seem more valuable: creating his own works; advancing his knowledge in other areas; or resolving issues in his life (such as his career, home, or social relationships). Having spent time in earlier years engaging with games he is aware of how time consuming they have the potential to be and prefers to avoid such a drain on his time at this stage in his life. In contrast to OA's position is that of JA who works in short intense bursts away from home, and uses games in two ways. The first is to provide him with an extended distraction (something to occupy his mind) during periods of 'down time' while away from home on assignment, and for this purpose he chooses games for his laptop which provide him with a deep and extended experience; something which will soak up 8 hours at a time. The second way in which he uses games to soak up time is when he is not on assignment and is at home for several weeks at a time waiting for his next assignment; for this purpose he plays games which, while still capable of occupying him for fairly extended periods, are more easy to 'pick up

and put down', allowing him more flexibility in his interactions with his partner and other responsibilities as well as the hardware he has available to use (where PC games are commonly more 'involved' than console games). It seems that in contrast to OA JA feels that he is quite comfortable where he is, keeping himself busy with his career which satisfies his need for self-improvement, actualization, or fulfilment while at the same time having plenty of spare time. In light of the other factors of identification JA feels quite comfortable spending these periods of 'down time' engaged in play, seeking it as a valid leisure activity for someone such as himself, a fulfilled and busy individual.

Other subjects interviewed in this study have various relationships with the time they might spend playing games; such as AB who indicated to me that he felt too busy with his studies to spend time playing and PA who initially started playing as a way of engaging and spending time sharing an activity with her son.

While time spent might be viewed as a material investment, there are occasions where subjects value the time spent playing and do not see it as a 'cost', while the financial cost involved in obtaining a game is difficult to conceive as ever being deemed a 'benefit'. None of the subjects interviewed expressed the view that they played in order to spend money where they did express the view that they played in order to pass the time. So only some costs are culturally relative.

6.1.4. Social possibilities

Social possibilities of playing a particular offering are numerous, but depend on the potential player's sense of identification with the game or device. Social possibilities range from being a focus for co-located play with friends and family (e.g. CB indicating that she mainly uses her Wii when friends are around) to being a 'must have' status item within a group of peers (e.g. MC indicating that he likes to get games on the day of release). There appear to be several socially motivated factors when obtaining a

particular offering: The prospective player could be intending to play the game with friends; they might be looking for an opportunity to engage with an online community; or there is a possibility that certain players might feel that owning the game or device as an object has some kind of social currency within their peer group, and hence need to be the first to obtain it.

6.1.4.1. Negotiation of possibilities for group play

That players might select games based on the perceived potential for group or 'multi' player possibilities is a clear example of socio-cultural identification. An individual who is negotiating this factor during selection is implicitly stating, "I am a social person; I have friends, thus I would like a game that that I can share with my friends.". This is not necessarily to the exclusion of solo play however; rather there may well be an element of selecting for social play possibilities in some of an individual's negotiations. For example KA enjoyed Super Monkey Ball (Amusement Vision 2000) and stated that she would look for a similar game again. She also stated that she didn't really engage with the main part of the game (a puzzle game involving rolling balls across obstacles), but focussed on the mini-games (simple multi-player game elements using similar mechanics to the main game). However she still enjoyed games with no specific multi-player possibilities.

This type of negotiation then requires the potential player to see that a game has been designed with multi-player possibilities. They must also imagine that the gross factors of the design would be acceptable to their intended playmates, such that the theme, mechanics, control system, difficulty, complexity and so on will not prevent any playmates from joining in. The material investments will also be weighed against how likely it might be that the correct social conditions will be achieved often enough to justify the expense. The number of supported players may also factor to a lesser

degree, in that if a game supports involvement by too few players then it may be rejected as being somewhat anti-social. Essentially the selecting individual needs to know that the game will be well received by their group of potential playmates; that there will be no factors which will put off or alienate this intended group.

An example of a player negotiating this feature is where a sport fan engages with a game partially based on the available possibilities for playing with (against) their peers. A football fan (IA for example) may well have an expectation that opportunities will arise to challenge their friends, who are similarly engaged by football, to a game or even some kind of tournament, and will engage with the game on this premise. They might be fairly confident that the theme might well be well received by their football loving friends. These friends might also be expected to understand the complexities of the rules and have some skill in playing other, similar games. If there are friends who dislike the represented sporting theme, they will not be included in this consideration, but rather the selecting player must be fairly confident that a gathering of suitably receptive friends might be possible at some point in the future. So the player is negotiating the possibilities of a football game with respect to the potential for group play; they are negotiating between the offered possibilities and the imagined or expected attitudes of potential playmates.

6.1.4.2. Negotiation of possibilities for online play

Just as a player might be working out if there will be good opportunities for group play with respect to a certain offering, so, in this modern era, they might also be trying to work out if there will be good opportunities for online play with others with respect to certain offerings. While both somewhat social, negotiating this question is different from the question of group play, as while a player seeking a group social experience with peers will be concerned with the tastes of those peers and other factors relating to the

group dynamic, the player seeking an online gaming experience will be concerned with and negotiating the space of such features as the size and type of the 'online community'. While they might be keeping in mind the possibility that they might be able to play with friends remotely, this is again different from the considerations that would be made when negotiating the possibility for group play in that the player does not need to predict, in advance, some physical gathering of receptive peers. Rather they will be hoping that opportunities will arise where they are online and playing at the same time as their similarly engaged friends. For example AB told me that his brother gave him the games and equipment to play online, presumably because he was keen to play with someone he knows across the internet, while HA, HB & OB state that the possible online community is a factor in their selections for certain games. We can state with confidence that online play is a factor for some, and the variables to be negotiated are not the same as for co-located group play, but are likely to be more related to the dynamic of the online community. I will demonstrate why this is so in a later section which deals with negotiating the value of playing online which when viewed in the cycle of select – play – reflect will obviously affect future selections.

6.1.5. Supposed challenge or activity type

As well as the somewhat obvious negotiations at selection of acceptable themes and visual presentation styles, players will be forming an impression of what they will be *doing* to play the game. Games in general present a very broad spectrum of available activities to potential players. It might be argued that the 'interactivity' or capacity for players to act is what separates games from other media such as cinema, television or print. This capacity for action will have potential players determining if the actions themselves are aligned to that individual player's sense of identity as they select the activity. For example a player who feels that they should be engaged in intellectual pursuits (such as BA) will be seeking games with strong puzzle elements: *"What attracts*

me to game play is the problem solving aspects of the game. Hence why I like Resident Evil, because very often they present you with puzzles and, you know, problems: In order to get through a door in order to get through another door etcetera etcetera. So I like things that present problems, and then you have to find a solution around them.". While players who wish to demonstrate their mastery over technology (HA, HB & OB) will be looking for skilful competition in some of their selections. This negotiation can work both ways, with potential players shying away from offerings involving activities, challenges, or challenge structures which they cannot identify with. For example BA does not want to invest time obtaining the manual skills in order to play a game and as such will avoid games which demand a high degree of hand-eye coordination. This can be expressed as the player seeking games that they are likely to be good at such as AA who, identifying himself as somewhat 'musical', would seek 'Karaoke' games due to identifying with the challenge type. Similarly expressing a failure of identification with an offering in general can be expressed as a perception of excessive difficulty, such as GA stating that she wouldn't play certain games (in interview with myself and her sister JB):.

GA: Tomb Raider. Hate that.

JS: Yeah? Why?

GA: Can't do it <laughs>

JS: It's too hard?

GA: Yeah

JB: No you just get to a certain stage on it and it just stops on you.

GA: I don't like fighting games... well I like Tekken, but not like machine gun stuff... and driving games, because I always crash.

Obviously this perception of the available challenges and other active features (the arc of the narrative or the ergonomics of the controls say) of play will only truly be resolved once play has initiated, which I will explore later in this chapter. There is however a factor where player build up expectations. These expectations will be formed from the usual sources (reviews, packaging information, supposed genre, discussion with peers and other trusted parties, and so on) and modified according to other points of identification. This negotiation is not necessarily how difficult, long, or complex the challenges or challenge structures might be, but is a negotiation of the very essence of the activity itself. A good example of this distinction is where DA, having played Super Mario Bros. years ago and rejected gameplay in general as an activity without merit, then states that he would be interested in trying out the Nintendo Wii due to the extra physical dimension of the control system.

DA: There's this game now, I don't know what you call it, this new game where you play squash, a virtual squash where you have to physically move

JS: Yeah Nintendo Wii?

DA: Yeah?

JS: Wii Sports has Tennis and Golf and...

DA: What do you call it? Nintendo...

JS: Wii W. I. I.

DA: OK, Nintendo Wii. I can see why people might be fascinated with that and I can see the attraction there, because you need to physically move and it's challenging, but I don't see why people would find it interesting to sit in front of a screen pressing all sorts of keys.

This quote suggests that the previously available activities offered by home gaming systems were not suitably physically active for his sense of being a physically active

person. Other players hold a more open attitude to the activity in general, allowing them to consider gameplaying as one acceptable leisure pursuit amongst others. Indeed all those interviewed who did play games seemed to hold an individual, overall position relative to the global concept of 'videogame' playing. Where the individual held gameplay as something that someone like themselves might engage in, we are then exploring which games and to what extent. Where a subject has wholly rejected the general activity (such as in the case of DC who told me that she would never contemplate playing a game) we can see that this rejection is a composite of value identifications driving them away. That is DC sees games as juvenile while she is an adult, sedentary where she is active, and anti-social when she is actively social.

6.2. Play as negotiation

Once a player has reached the point of accepting an offering as suitable or agreeable (that they are likely to be the kind of person who would play such a game or with such a device), they will then be disposed to the possibility of playing it. This engagement as a state of disposition is not fixed, in that it is not such that a player who is engaged by the idea of playing will then set about playing the game 'fully' (as the designer intended); rather it is such that the negotiations between the player's sense of identification, the imagined reactions of their social context, and the actual experience of playing the game (or with the device) are fully initiated. Initially there is a sense of traversal from wanting to play the game to 'actually' or 'really' playing. This phase might be seen as 'giving the game a chance' and lacks a clear end, unless the match between expectations and the actual experience of play shows that the game dramatically disappoints the player. We could say that for every new element that is introduced throughout the playing of a game the player will be 'giving it a chance', but this is increasingly subtle with the player also having extra investments in play (having spent the time to gain skill, develop

characters, engage with the narrative or whatever), rendering the impacts of 'bad' new elements less destructive to engagement than they might have been if they had been revealed when the player first initiated play.

We could break the identity negotiations, leading to a sense of net cultural worth, with respect to actively engaging with a game through play, into 3 theoretical perspectives: Negotiation as the challenging of assumptions and testing expectations; the ongoing negotiation of the dynamic quality of gameplay; and the negotiation of worth determining continued engagement.

As with the previous sections of this thesis these perspectives are not distinct, but are intended to broadly illustrate the central hypothesis that players engage with a videogame offering as a negotiated sense of cultural worth via a summation of personal identifications.

6.2.1. Trying out as negotiation

This sense of trying a game out or giving a game a chance comes out quite clearly in certain parts of the data. That a player is forming an idea about what a game is even before they sit down and 'have a go' is central to this part of the thesis. The player having zeroed in on an offering that might potentially be the kind of thing that a person like themselves would play (with or on) must then find out if the imagined case is borne out by reality. Does the game provide the kind of activity they are looking for? Is the theme realised in the way they expected? Are the graphics of the type suggested in the reviews and advertising materials? Can a sufficient number of players join in and play together? Is there a suitable online community the player feels comfortable with? These initial interactions will have the player trying to determine if the principal factors of engagement identified during selection are as expected or if the difference between the presentation of the encountered features and the expected features forces the sum

sense of value to become unacceptable. If the resolution of this re-evaluation (renegotiation) is that the net sense of worth is no longer acceptable, the game will not be 'played in earnest' and will probably be set aside. However the material investments already made may have the player persevere. For example, if they spent a great deal of time and effort finding and obtaining the game, or if they had spent a relatively substantial sum of money on the item, they will be more inclined to see what the game has to offer than if they had simply been given the game or had otherwise obtained it for very little cost.

Another example of a 'trying out' variable which may influence how much the player is prepared to persevere with a game with as yet unproven value is that proposed by CA whereby a game which the player has heard great things about may be given 'more of a chance' than a game which has been poorly rated by trusted parties.

From these 2 examples of factors which influence the player's sense of trying out we might say that there are at least two variables dictating the amount of time and attention a player will give a game before forming their own opinion of 'goodness' or 'badness' and these are *expectation* and *investment*, both positively correlated to the degree to which the player will give the game a chance.

An example of this type of negotiation was found when experimenting with watching players encounter games for the first time (NA interview). Although the data wasn't really rich enough to pursue the method further, the simple fact that a player brings preconceptions to bear on what the game will be which is also modified by the total investment made was enough cause to keep the data from that single trial. NA felt that Angels vs Devils (Enigman Software TBA) had a potentially amusing theme, but that ultimately the theme was not well realised and the game (which he had little knowledge of, other than the title and a brief description, prior to playing) was ultimately dull and

uninspired. He stated that having downloaded the game, he would have given the game even less time (less of a chance) than he did, but he thought I wanted him to critique it.

JS: *Do you always watch the intro movies?*

NA: *No but...*

JS: *Only if they're good?*

NA: *I just thought that today I had to do that. I dunno.*

And:

NA: *What I would normally do now is: press escape button and uninstall the game*

JS: *Do it.*

NA: *But...*

JS: *I'm not bothered. Do it.*

NA: *Alright, let's see what happens after that.*

He had little investment in the game having downloaded it for little cost and had no expectation of quality and as such was only going to give it a couple of minutes to prove to be an amusing diversion if anything, but persevered in the artificial setting of the recorded data collection session.

At this stage of trying out the player has decided that they are the kind of person who would play the game that they hope or imagine the game to be when initiating play, and must determine if they are the kind of person who would play the game as it turns out to be by actual playing it. As such at this stage the player is evaluating implementations. So the player already feels that they are the kind of person who might play a war simulation game say (NA and Söldner (Wings Simulations 2004)), but is interested in how this is implemented. Does it force you to complete a virtual boot-camp (bad)? Is it

fairly realistic (good)? Can you play it multi-player (good)? Do the graphics show off the capabilities of my PC (good)? Does it exhibit a number of bugs and glitches (bad)? Can the player achieve a level of competence fairly rapidly (good)? If the implementation is not 'broken' (suffering from quality issues say) and still resolves to a positive sense of worth then it will remain in a state of evaluation, but based on increasingly subtle criteria.

The context of these initial encounters will also influence the player's interpretation. They may feel that the game is likely to be something they might enjoy (or not) but change their mind when they encounter the game. For example CA felt that Wipeout (Psygnosis 1995) was potentially a game he might enjoy, but found that it was far too difficult. This is likely to be due to the context of the initial encounter, where he was playing with friends who had extensive experience playing and would insist on playing at a level requiring skill which CA had not acquired.

CA: *It's alright, but I think it's one of them games that you've got to practice a lot to get good at, because I just…*

JS: *It's not that bad actually.*

CA: *…smashing into stuff.*

JS: *…because the level you start off at is really easy. It's basically getting used to the controls.*

CA: *Maybe that's where I fell down, because I was playing with people that'd played it loads. Playing stupidly fast things and stupidly fast tracks.*

An interesting counter effect is where a player encounters an offering almost accidentally and finds themselves engaging with it; discovering that their assumptions about the experience might not have been accurate and that they are indeed the kind of person who might engage with the offering encountered. This can be seen with the two mothers

interviewed (PA and MA) whom independently would have been unlikely to have engaged as such, but in playing with their sons (in order to spend time in a shared activity, and to help him solve a puzzle respectively) they both found that, in this context at least, there are features and qualities of certain games that a person such as themselves could reasonably engage with.

In summary the early encounters with an offering have the player evaluating the features of the game (in accordance with the hypothesis of seeking a sense of net cultural worth), comparing them with expectations, influenced by context and will put a degree of effort in the evaluation directly proportionate to the overall expectation and amount of investment made.

6.2.2. Negotiation throughout play

Once a player has selected an offering and then encountered that offering without being 'put off' they may be said to have identified it as a game that they would be disposed to play; they are now definitely the kind of person who would play that game in that context. However many games are not a simple interaction repeated over and over again (as games such as Tetris (Soviet Academy of Sciences 1984) might be said to be), but often progressively introduce new elements to the player as the player gains skill, tokens, or progresses through the story or different challenges and levels. As such for many games the player will be constantly evaluating the offering as they go; shifting their sense of identification in light of new elements. Even though the terrain of the game is shifting, the player must always feel that they are engaged in an activity of positive net worth or they will stop playing or will not return to play in future sessions. The degree to which they have already formed an identification will influence their degree of perseverance, such that offerings with which the player has formed a strong personal connection (by developing characters or other 'actors' and objects, engaging

with a story, or developing skill) will be much more resilient to problems such as a particularly difficult challenge, a bug, a displeasing plot direction, or any other unexpected negative experience. This feature of personal investment of identification is most apparent when discussing cheating.

In the discussions about cheating with various subjects, a strong sense of personal identification and cultural reflection was revealed. Using cheat codes, hacks and FAQs was mainly viewed as negative, robbing the player of a sense of achievement and potentially breaking the sense of challenge/reward. Reintroducing the example where JA felt that he was unable to enjoy playing Project Gotham Racing (a driving/racing game which 'rewards' the player for successfully winning races with new cars and tracks) once another party had used a code to unlock all of the available cars:

JA: *Colin McCrea you got the… you can pull nice slides and everything, but that's part of rallying. Instead of having cones, you've got a tree and if you hit the tree your bumper falls off and your car knacks up a bit, and you've still got the rest of the day's stages to go, with a bit of a knacked car. Realism in rallying, and that unlockable aspect, where you just start off with a few cars and progress through as your skill gets better. I like that.*

JS: *I was reading somewhere about this unlockable aspect. I think it was in some game design thing where there was someone at Codemasters, or somewhere, were saying that they'd always get phone calls from people going, "It's got a picture of a 'blah' on the back, I want to drive one of them.", and then they have to explain that you have to unlock it, and some of 'em just don't want it, they just want to play it all now.*

JA: That gives it a really small shelf life as far as I'm concerned. It's like with Project Gotham I nearly got to the end, well I got over three quarters, and then [my girlfriend] says "Oh well if you just do this, you can unlock all the cars." I got massively disinterested in it after that. It's only recently I started picking it up again just for the driving element.

JS: So what? It was like you already knew what all the goodies were, or you hadn't achieved what you'd set out to achieve or something? It's like you'd cheated to get there.

JA: Yeah the cheating element was, for me, a bit of a disappointment.

JS: Why was it disappointing though? Was it because you had everything straight away, and you were playing it for curiosity to see what it was, or was it because you'd…

JA: It just basically put in there all the cars. So you just take out the top car, the Ferrari F50, and took that round and raced against every other car and just massively burnt everything off. I didn't really look at the cars I didn't have, like the Aston Martin and that TVR and the Porsche GT2. Straight to the top car. I didn't go through those, I didn't appreciate the cars. Doing it properly I got up to the Delphino. I was just off getting the Ferrari F355 Spyder, that was my next car to get. I know that if I tried it again now that I'd be so rusty. The only reason I like playing it now is because I like tearing around in a believable setting in a believable car, doing things that I'm not allowed to do in that setting.

He felt that this act of cheating robbed him of his motivation to play; to gain and demonstrate his skill at using lesser vehicles in order to receive and subsequently learn how to use faster and more exciting vehicles. In that having used the most exciting cars

in the game had left him with nothing to aim for. We might relate this motive to Malone's (1981) factors of intrinsic motivation; suggesting that JA has been robbed of *challenge* (there are no more prizes to aim for) and no longer has any *curiosity* about the ultimate rewards (having tried out all the best cars). Looking at other motives to cheat however suggests that while Malone's three factors (challenge, curiosity, and fantasy) have some power, players are still engaged in a negotiation of value through identification with various elements of play. Take HA, HB & OB's perspective on cheating and seeking help for example. They express the sentiment that they would rather give up on a game if they find an insurmountable problem than cheat to overcome it, but would consider that to be a personal failure. They consider it a matter of pride that they would play any game, they have determined to finish, on the hardest difficulty setting (where one exists). The only time they would ever consider 'cheating' is when they have finished the game and want to see what extra features or 'Easter Eggs' the designers have hidden in the game.

> *JS: So you won't cheat using a FAQ or cheat code if you're stuck on it? You would keep plugging away or give up?*
>
> *HB: I wouldn't give up*
>
> *OB: No real giving up*
>
> *HB: If I wanted to clock it I wouldn't give up. Like Devil May Cry 4. I played it half way and gave up, because the layout was crap. I didn't like it because it was repetitive so I gave up because of that, but it wasn't hard. Like if something's hard in a game you want to get past it... in the game; if I want to clock it anyway.*

So while they might be said to be demonstrating behaviour consistent with Malone's factors (engaged by the challenge of the game and then curious about the hidden extras

in the game) that HA, HB & OB would abandon a game suggests that even where players value challenge above all else it can act as a negative motivator. This suggests that there is a super factor, determining how much challenge a player will tolerate, and that that is a sense of net cultural value. 'Am I the kind of person who would persist at this game?' 'Am I the kind of person who is bothered enough about the outcomes of this game to spend time gaining enough skill to overcome this challenge?'

These reflections on challenge and cheating might suggest that we should re-examine the common interpretation of Csikszentmihalyi's theoretical concept of Flow (1990), where, using the most simple summary, a player might be said to become most highly engaged when their abilities are most closely aligned with the challenge or difficulty encountered, such that they can only just overcome that challenge. This theory, as so summarised, does not explain why one player might be quite content to fail at a challenge dozens of times before finally overcoming it while another might give up at that challenge after one or two failures. It is my hypothesis that this difference comes down to a net sense of value, with the player's identification with the offered challenge being a factor alongside their sense of identification with a wealth of other features. Indeed some players (OA as an example) shy away from some of the key effects of Flow, not wishing to get lost in the experience and lose track of time, feeling that time spent in playing is worthless. This also suggests that players are not engaging with a game simply in order to Flow, but are engaging for 'higher-order' purposes. Indeed a closer reading of Csikszentmihalyi's theory suggests that an individual must find an opportunity for 'meaningful' personal advancement or growth before they will accept and strive to overcome a challenge. This perspective is closer to my own observations than that an individual's skill must closely match the current challenge, which is the aspect of Csikszentmihalyi's work which is most commonly quoted in the literature.

So just as players seem to sum the factors of a game to a sense of net worth while selecting a game to play and then test these assumptions and re-evaluate the sum in their early interactions with a game, they can be said to be resolving this sum through a process of constant evaluation or negotiation throughout their experience with the game.

Of the factors which seem to shift over time as a player engages with a game that have been encountered in this research I have noted:

6.2.2.1. The ability to 'put down and pick up again'

That a game should be easy to 'put down' seems at first to be the opposite of engagement, if we imagine that engagement is some compulsion to play. However the expression that a game should allow the player to gracefully exit and return to where they left off is one that was expressed several times (i.e. JA, KA).

KA: Play Super Mario (Sunshine) and Zelda…

JS: Yeah.

KA: Due to the fact that they're platform games that are easily segmented, so you can sort of just do a bit then leave it and go away again.

And:

JT: Yeah, it's like one game where I can dip in and out; another game where I've got a big long piece of time to play; and the same with the last one.

In light of the hypothesis of personal identification with the factors of engagement we might suppose that this factor may be related to a sense of control; with the player feeling that they should determine their own minimum interaction period. A loss of this sense of control will discourage the player from playing 'one more level' (or similar) if it is apparent that this 'one more level' might take an unacceptable amount of time to complete. Similarly JA expressed that he was discouraged from playing a game (Halo

(Bungie 2001)) which would require him to re-learn the interaction methods after an extended break, discouraging him from 'picking it back up again', while CA felt that being forced to perform a single action in order to progress in Final Fantasy VIII (Square 1999) was frustrating (along with the relatively long, non-interactive, 'unskippable' animations for some quite common actions) as he felt that it was extending the overall interaction time for the sake of it.

It could be that the tempo of play is important to the Flow-like engagement experienced by players. A short minimum interaction period encourages 'one more go', so if the trials, levels, battles or whatever are short enough, easy enough to access, and fast enough to initiate, the player won't be discouraged from that 'one more go' or 'one more mission'. If however they are forced to replay large sections of the game because they have failed at one knotty problem, wait for extended loading times, or that the next 'task' will take them a substantial amount of time to complete then they may well be less inclined to do so. This idea of tempo will require more extensive research, however I will contend that, in general an unnecessarily extended minimum interaction will serve to act as a factor with a negative weighting; a militating factor. A player may often feel that they are not the kind of person who has the time or patience to wait for the same level to load yet again; wait while the same animation plays yet again; or spend a long time searching for that next save point so they can put the game down and do something else.

Players seek differently paced experiences at different times and for different contexts from killing time (JA) to letting off steam (AC), whether these expectations are met might not be due to the minimum interaction period and is more likely to be based on the sense of the total interaction period. That is a player, as they play, will be determining if the game appears to offer suitable 'depth' to allow them to play for the

period they have notionally set aside for the activity. This perception of what type of pacing the game offers will also be negotiated as an identification, in that a player who feels that they are the kind of person who would wish to spend an extended amount of time playing an involved game (either through the challenge structure or the narrative structure) will not be put off by a game that makes increasing demands on their time, but may welcome such a progression, whereby a player who sees themselves as one who plays games for an occasional, short, refreshing release would be put off by being forced to spend more time than they feel they should, and would instead be happy with progressions which make greater demands of their skill or other session to session demands, rather than long, within session time demands.

6.2.2.2. Shifting context

'Doing something else' as mentioned in the previous section could well be enforced by a shift in context as the player engages with the offering. While the player might be happy to engage at one moment, they might not wish to engage ad infinitum. Not necessarily through boredom, but through a change in the immediate context of play. As the ability to pick the game up and easily and gracefully exit a session may influence their desire to continue playing, sometimes the immediate context might simply no longer be suitable for continued play. For example a player who is principally seeking a social experience. They may well become engaged while a suitable group of playmates are available and engaged, but if that group then become less receptive to play for whatever reason (called away by pressing responsibilities or simply boredom say) then the context which initially engaged our player no longer exists and the game will no longer engage. This is not a fault of the game or device (although it might be argued that a well designed offering should pre-empt this possibility in its design and allow this process of disengagement to happen gracefully) and a player with a high degree of identification and subsequent engagement will be more resistant to such changes in context. Take

again the example of JA who in his more socially aware play choices recognises that in playing certain games his social context is likely to change (his girlfriend coming home from work) which will change the context of play and he would feel less comfortable playing a highly engaging game than when he had the television and lounge to himself.

> *JT: Yeah, well it depends what mood you're in, and for me, what environment I'm in. I mean, I doubt I could sit here with [my girlfriend], with a PC and go, "What I mean, it's gonna take us a couple of hours to set this manoeuvre up, in Ghost Recon, because I've got to get this bloke and take him all the way round here without getting seen, and then put him here and crawl him up to his sniping point, and then we've just got to wait for the bloke to walk past…" I mean for somebody who likes cartoony adventures, that's just not gonna cut the mustard is it?*

So as he plays he is negotiating the sense of suitable context, and where the contextual factors militate against his enjoying the game he will be less inclined to continue playing, and he is doing so with a consideration to what he imagines the tastes of his partner might be.

So as a player plays with an offering they are likely to be implicitly asking 'am I the kind of person who would continue playing in this context?' as they were asking ' am I the kind of person who would play in this context?' as they initiated play.

6.2.2.3. Developed engagement

As suggested in the discussion of negotiated tempo and pacing, some players engage with a sense of increasing involvement (over simply increasing skill say). We can see this development as a player identifying with the overall development of the game elements. That is, as the player spends time and energy developing structures within the game they can start to personally identify with those structures as their own. A personal

investment of this type might come from a number of sources such as the progression of a branching narrative, the collection of various types of game tokens (reward points or other kinds of 'prize'), the collection of game objects (characters, vehicles, weapons, and so on), or even the progressive customisation of in game elements (characters, vehicles and so on). As this investment increases over the course of an overall engagement with a game, this motivation to continue playing increases in proportion with the investment made. CA expresses this need as a need to personalise the experience through customisation (changing the names of his characters in role playing games to those of his friends), while BA expresses this need as a desire to shop and collect the various tokens and objects available in a game:

> *BA: The fun part was the aspect of finding the money and buying the goods. So it presented a shopping aspect; which was the same feature that you found in Ratchet and Clank. So you pick up nuts and bolts and then you go shopping, because when you think about it, people love to shop.*

Here BA is partly playing the game to collect a fund of in-game tokens (‘nuts and bolts’) that he enjoys exchanging for new in-game assets (‘shopping’).

This type of progression, and how it can be broken, is evident in the example of JA and his desire to make progress through Project Gotham Racing (Bizarre Creations 2001), which was subsequently damaged by the act of a 3rd party cheating on his behalf, in that he no longer needed to earn the new cars, and thus any sense of achievement or reward he was looking forward to was removed.

The negotiated sense of identification is quite evident here. The more the player is allowed to influence the outcome of a game the more the game becomes 'theirs'. Those are their WiiMe's on their Wii, that is their garage full of cars, their football team, and they have personally brought about the current state of the narrative by their choices. As

they are, as I have already argued, the kind of person who would play this kind of game, as they influence the game according to their own actions and tastes, they become the person who is playing this game rather than merely the kind of person. The game becomes 'theirs' a reflection of them.

6.2.2.4. Social Development

Similar to the effect of developing the sense of becoming *the player* rather than merely a possible player is that a player can develop a sense of social development within certain offerings. This is particularly true of online play, where ones presented player persona in the online world can become socialised into that world in quite sophisticated ways. While it is not the intention of this thesis to explore in any depth the complexities of how this socialisation comes about for Online Multi Player Games (especially Massively Multiplayer Online Role-Playing Games or MMORPGs), I have already introduced players who have become engaged in online communities to some degree. What is interesting for the purposes of this present theory is how these social investments (making 'friends' and forming teams, parties or clans) act as a means of relating a player's sense of personal identity within the context of playing the game. For example DA expresses understanding as to why an individual might find the act of engaging in a less solo fashion with a game, but states that he would not see himself as the kind of person who would find such an experience valuable, preferring to socialise in the real world.

> During a discussion of the kinds of people who play games and whether they were the same people who would engage in non-game virtual worlds:
>
> *DA: I think technically minded people might be inclined to do both: like puzzle solving/computer games and this virtual reality/Second Life thing. Someone perhaps less technically minded, yeah this virtual space, this Second Life perhaps I think, but if so I think it might be more of an*

ephemeral craze. I can't really see someone who is a bit more, in inverted commas, 'open minded' and less technically inclined to spend 8 hours a day in a virtual chat room, which is what it is.

And later during a discussion about what he did like to do with his spare time:

DA: Socialising. I like being with people. I like talking with people. I like conversing with people... engaging with people.

An example of how such communities can act as both a motivator and a de-motivator is expressed by HA, HB & OB. Their experience of becoming deeply involved with certain online communities shows that while the development of a skilled team of players is appealing for these 'hardcore' gamers, the fact that this may involve real people who don't appear and disappear at the flick of a switch, and as such the fun of having an available group of well matched online playmates can become tiresome when man management of the team becomes increasingly necessary. To their minds they are the kinds of people who play games for wholly other reasons than to engage in the trials and tribulations of someone else's life.

So in terms of negotiating these social factors as a sense of personal engagement, to some players the appeal of having a set of trusted and decent playmates is apparent, where the facility to play against others online is available. However, some are likely to find that they are not the kind of person who wants to micromanage other people in terms of competition schedules and training sessions, or that they are not the kind of person who wants to spend a large amount of time engaged in activities to support the play activity they identify with, and so games with these features detract rather than attract.

6.2.2.5. Negotiation of Desired Freedom vs Linearity

Players appear to value both freedom and clear well defined objectives, both in terms of the games they select and as a discovered feature of a game as they play. While a player might well be playing a game for a number of other explicit factors they may well find themselves frustrated by the lack of clear objectives (as predicted by Csikszentmihalyi's theory relative to challenges) or they may conversely find themselves frustrated by the lack of opportunity to explore and develop one's own path through the game. An illustration of this discovery of the relative merits of a linear path through various games can be found in the interview with KA:

JS: Yeah, I get that with Resident Evil. You were talking about story lines as well.

KA: Story line's very planned and very restrictive.

JS: Yeah, like, "Go down here, talk to this bloke and then..."

KA: Uh huh

JS: Yeah... but there's a certain extent of that in Zelda.

KA: Yeah, but you've got more freedom to, sort of like, bugger off and do other bits, and come back again. Where as with Resident Evil, there isn't anything to go off and do, then come back. The same with Luigi's Mansion.

JS: Yeah. What about Jet Set Radio?

KA: Well you kind of can, you can sort of quit out and go and collect different souls', and come back again. It is structured in a way, but you can bog off and do other things.

JS: Yeah.

KA: Super Monkey Ball's great, because it just gets lots of people involved in doing really silly things. It's really easy to give [younger relative] for her to just mess around with. It's not even... it's not very complicated.

JS: Well have you played the single player missions up to the really hard ones?

KA: <laughs> I can't get past the easy ones, let alone the really hard ones. We need to get Super Monkey Ball 2.

JS: What for the... just for the extra mini games?

KA: Yeah.

JS: You think Monkey Ball's more about the mini games than about the actual central game?

KA: Yeah, because the central game is pretty repetitive and boring, with... you know, you do it a few times and you master it and it's done, where as the mini game you can actually, sort of, play lots of players and... party type thing going on.

The above exchange clearly illustrates the negotiation of linearity vs freedom performed by KA in her recent gaming experiences, in that she is interested in playing games with clear objectives, but is frustrated by too much restriction. Being able to 'bugger off and do other bits' is important to her where a game like Super Monkey Ball, which is presented as a linear series of increasingly difficult challenges supported by some 'mini-games' which use similar mechanics, is frustratingly linear or repetitive. Obviously the above transcript touches on a wealth of other categories mentioned elsewhere in this thesis, but that KA has approached, identified with, and engaged in playing only certain aspects of certain offerings does suggest that she may well have not pre-empted the degree of game linearity, and rather this feature of play was discovered and negotiated into being seen as a salient factor with a negative weight.

Conversely another conversation with a similarly aged female gamer suggests that some players discover that excessive freedom can frustrate as much as too little freedom. JC expressed that she found games with excessive 'wandering about' to be boring, and that

clear, well defined objectives were essential for her ultimate enjoyment of a game. She may obtain and set out to play a game only to discover that she is required to explore the game world in order to find objectives which is frustrating. Her preferred game style is that of the 'standard' First Person Shooter (FPS), where she is given a mission objective, and must use her skill to complete that objective before moving to the next objective or level. She stated that her experience of 'western style' Role Playing Games (RPGs) is that she gets bogged down in doing 'side quests' (objectives which do not advance the central narrative) and looses track of, and interest in, the main thread of the story.

As KA's preference is balanced and JC's preference is for direct objectives, MC uses his desire for a degree of freedom to differentiate between two games within the same franchise (Need for Speed: Most Wanted (EA Black Box 2005) over Need for Speed: Carbon (EA Black Box 2007)); where he told me that he did not like Carbon as much as other games in the series as it lacked elements of free roaming, police chases, and car modifying relative to say Most Wanted.

Exactly how one might explain this relative desire for freedom as a negotiation of self-sense is not clear, but there is certainly an expressed general preference for a relative degree of freedom which players discover and resolve as either pleasurable or frustrating, just as they might negotiate other discovered features as they play. It might be possible to elaborate this preference and come to the conclusion that some users see themselves as non-conformist or creative in some way while others see themselves as skilful and up for a challenge perhaps, but this degree of elaboration would be against the spirit of this research. I can state that negotiation on this factor is similar to other negotiated factors and is likely to be resolved in a similar way.

6.2.2.6. Negotiation of factors resulting in shifting focus.

It is likely that as players move from the negotiated factors of selection to factors associated with play there is a shift of emphasis away from surface factors (thematic, graphics and such) toward ludic factors (game mechanic, challenge and such). That is players might find that they feel that they are the kind of person who would play a game with a particular graphical style say, and as they play the game become less concerned with the particular graphical style and more concerned with the actualities of playing the game; meeting the challenges or progressing through the story for example.

KA demonstrates an instance of this, in that she states a selection preference factor for games with a cartoon like graphical presentation, but then in describing her experiences of playing through certain games she describes features relating to the challenge structures. This suggests that for her the graphical style is a reason to initiate play, but in order to maintain engagement she requires that a game grant her a degree of freedom in the challenges offered. With more experienced players the shift from identifying with attractors to negotiating the active pleasures of playing may be more subtle, due to their increased experience of having played more games and their enhanced research into what play experience to expect, but is likely to be present. For example HA, HB & OB talk of seeking cutting-edge technology in their selections, but then of defeating challenges and engaging with the community of players for games that they are trying to 'beat' or become skilled at. The attraction will still remain, and any shift within the game which denies the player features which they initiated play for in the first place or vice versa will have the player re-evaluate the game based on the feature, but in light of the new sense they have of the value of the game based on their experience with actually playing the game (and the attendant investments made; as discussed above). This might explain in part DB's attitude toward Final Fantasy VII, in that while multiple graphical styles are used, and while he was engaging with the

challenges presented, he realised that the graphical style which was most prevalent in the game was the 'babyish' super-deformed style, which he couldn't identify with, dragging him back away from the challenges to evaluate why he had initiated play in the first place. In his book exploring 'casual' games Juul (2010) suggests that these surface features or 'narrative' elements are those which the user engages with first. I suggest that these are factors which may have greatest influence early on, but are part of the overall evaluation of factors both at selection and during play.

A strong indication of this shift of emphasis is where mothers engage in play with their offspring. The two mothers interviewed initiated play primarily to engage with their sons, but found that having done so they were engaged by the sophistication of the challenges offered, shifting their emphases from "I am the kind of mother who engages with things their son loves" to "I am the kind of person who is clever and dexterous enough to overcome these sophisticated challenges."

6.2.2.7. By Session vs Session to Session

There appear to be two types or phases of negotiation during play. Ask a game player what they are playing right now and, even in the absence of their actually, physically interacting with a game at that precise moment in time, some answer is likely. This is due to the sense that they might be 'in the process' of playing a game or several games. They have not rejected the offerings and intend to return to them at some point in the near future. We might say that the player is then 'between sessions' as opposed to negotiating the merits of continuing to play within one session. This latter phase being where a player sits (usually) down to play a game and does so until some combination of factors has them put the game aside either permanently or temporarily.

The letter of these two types of negotiation could quite easily be considered in light of the basic version of Csikszentmihalyi's Flow theory, with the player engaged in meeting

challenges or otherwise making progress, stopping when the activity becomes untenable. For example JA playing Diablo II (Blizard North 2000) until too fatigued to continue.

The former negotiation, where a player has decided an offering is something that they could be said to be playing even when they are not actually doing so has less to do with the common reading of Flow theory and has more to do with both what a player is prepared to admit to playing and what a player has found to be agreeable. The sense that they might be looking forward to the next opportunity to play, to make progress, is consistent with a more close reading of Flow theory, but I contend that the player has negotiated a sense of value with respect to that particular offering such that they are in a state of self-sense compatible or culturally acceptable engagement, rather than a sense that the player has found the 'meaning' (Csikszentmihalyi's usage approximating to 'personal significance') of the activity in a general sense by virtue of it being simply intrinsically motivating by producing a state of Flow in the player. This state of being engaged by a game while not actually playing the game can be viewed as a type of reflection, where the player might be wondering about the merits of a game, or specific solutions to challenges or potential plot directions even when they are not actively playing. If this reflection results in the player determining that the outcomes would not be worth the effort of returning to the offering they might not return despite being highly engaged as they played in previous sessions. This effect can be seen in the stated behaviour of OA who knows he might well become highly engaged by certain games, but finds this (we might say Flow-like) sensation pointless. He ultimately derives no pleasure from videogames as an activity in their own right, and will avoid 'wasting his time' on them when he could be engaged in activities he has determined have a greater net cultural value. We could say then that OA has on occasion found value in the moment, he will rise to the challenges offered by certain games, but ultimately finds the experience wasteful.

OA: Well you're kind of consuming, you're not erm... like you're consuming when you're watching a film. It is kind of down time... and you're not creating anything yourself by just playing it. It might give you stimulation like anything else, to give you ideas towards doing something else, but you can also feel quite lazy and just sit there for hours not doing anything apart from playing the games... and once you you've worked out how a game engine works and the types of puzzles it's going to throw at you, you're not really pushing yourself in more than one direction.

And later:

OA: ...and there is that aspect that I feel... it's not whilst you're playing that you feel that you're wasting your time, it's when you discover how much time you've spent playing something... and it has been quite enjoyable, but then you think "Oh I could have done something worthwhile today."

Other players relate how they are sometimes keen to get back to a particular game and will look forward to finding out what the game has to offer when next they play.

The difference between these two types of negotiation are subtle, but we might say that as a player is actively engaged in 'hands-on' play they are implicitly asking themselves questions such as "Am I up to this challenge?" "Is this next bit going to be as good as I might expect it to be?" while when they are not actively playing they are asking "Was that last session 'worthwhile'?", "Based on the experiences I have had, will I find value in future play sessions?". The latter of these negotiations is essentially a local reflection on past experiences. Local rather than global, as we are interested only in reflections about the offering just experienced rather than a general reflection about broader offerings and implications. This act of more global reflection is discussed in the section below.

In the sense that players can be notionally playing a game, it is apparent that players can be notionally playing many games at once, and will return to a game dependant on context and the degree of engagement they have with the game. So a player can hold multiple negotiated positions at once. Some players such as KA have stated that they will get engaged by a single offering above others and will feel drawn to 'complete' it (in KA's words she must “rush through”). This suggests that she has negotiated a sense of value for one offering which is much greater than that of others that she might be currently playing. Others (particularly JA) suggest that the context of play will determine which game they will choose to return to, which suggests that the negotiation of context is a strong factor in the negotiation of relative value between games which are currently being played; in his case 'involved' games are valued when bored at work and 'light' games are valued when at home with his girlfriend.

6.3. Reflection as negotiation

The above discussion of the negotiations which occur during 'hands-on' play and between individual play sessions leads neatly into the last phase in the interaction loop to be covered. While players are conducting fairly complex cultural negotiations as they select and play with games, past interactions will shape their value judgements and feed back into these negotiations.

Obviously as most of the data which informed this thesis is interview data this thesis puts forward a theory based on the reflections of game potential players. What is important to the theory as developed is that these reflections do provide us with some insight into user behaviour. Though it is known that people might often express an attitude contrary to their behaviour (LaPiere 1934) using methodologies such as CGT which essentially build up a composite of opinions from multiple sources on multiple

subjects to derive a general theory about the attitudes of subjects helps to mitigate this effect.

What is apparent from the data (including general observations) is that there are two types of reflection, implicit or tacit reflection and explicitly expressed reflection. So there are times when an individual appears to be forming an opinion that can only be based on their past experiences and there are times when individuals' experiences with various offerings can be heard being openly discussed respectively.

The act of tacit reflection is difficult to demonstrate other than in the player, when quizzed, relating their preference (or dislike) of new propositions to past experiences, but struggling to put their finger on why they have this value position other than in relation to those same past experiences. It is when a user tries to relate the qualities of an offering to others that the reflective player must make value judgements as to what factors to highlight and espouse or reject. These judgements will be contingent on the audience (including the self), and this is a key part of the cultural negotiation. Using Cooley's Looking Glass Self again, we would assume that in relating the qualities of an offering to others, the conversation will be shaped by the reflective player's sense of how this conversation is likely to proceed, who the audience is and how the player imagines his views might be received by this audience. This social effect can be seen in some parts of the data where my own position is polled by subjects rather than them simply launching into a exposition of their own attitudes and opinions about their experiences. I was a stranger to about half of the individuals interviewed and so when an individual is explicitly stating a preference we must assume that it is socially biased by the audience of that opinion; friend, acquaintance, or stranger.

That is not to say that a theory based on socially shaped attitudes is worthless. For example the disdain expressed by HA, HB & OB towards the Wii is a good example of

social factors influencing the culture of a small group, shaping their opinions and influencing their behaviour to some extent (if we assume that they are not lying when they say that they haven't used their Wii much recently). They state that it is for casual gamers and families, people who 'don't really play games'; they also criticise it for the lack of precision in the control system; and they raise the advertising campaign as 'evidence' of their points. The advertising campaign for the Wii console and the games available for it has been carefully constructed on behalf of Nintendo to focus as on the players of the games as much as the games themselves'; showing individuals who might be seen as stereotypical 'non-gamers' (middle aged people, whole families, women and so on) having fun interacting with the game and each other. With this campaign the intention seems to be to state “These are the kind of people who would play this game. These people are like you.”, which seems to have been somewhat successful in general (based on reports of sales figures). However HA, HB & OB have taken the opposite message to that intended by the advertising campaign (that of inclusion) to read the advertisements as stating “This is not a product for 'hardcore' gamers such as you.” and as such have drifted away from the console and the games available for it in general. A brief conversation with HC shows that the advertising campaign is apparently having the desired effect on some people, in that she told me that the Wii as an offering is “More inclusive”, presumably unaware that the Wii supports a similar number of simultaneous players to other contemporary consoles which also have a various simple multiplayer games, and that the motion control style wand employed as an input method might be said to less physically ‘inclusive’ when compared with the camera based, whole body object detection system available for one of the other competing games consoles (Xbox 360 Kinect).

This effect of advertising on an individual's (or indeed a group's) reflections regarding the relative merits of various gaming offerings could be said to be a type of rhetoric

(Walz 2003), with the creators of the games and marketing campaigns arguing for attention from the gaming audience. However the degree of penetration of advertising to the gaming audience is not clear. In fact the reflections of games players barely touch on advertising as a factor in their opinion forming, other than in the instances already discussed.

Another feature of the reflections of players is that game play is a personal activity. Much of the discussion of games uses first person pronouns, which is interesting when one considers technical literature on videogame design (Saltzman 2000) suggesting that the designer must focus on character and story as initial design considerations. Likewise talks by such luminaries of the industry such as Ian Livingstone stress that character and characterisation are key points of engagement for users. Rather it seems that in reflecting on their past experiences players are more likely to be concerned with what *they* did rather than 'who they did it with' in terms of playable characters. While a character can form part of the theme and hence be part of the selection and initial engagement negotiations (e.g. IA telling me that in terms of football games he looks for accurate depictions of teams and players) players will be engaged as they play by the ludic structures of the game as well as the characters. The player is the actor in the game, and the character and story will act to frame the player's actions, but not the actor performing the actions. So a player will not state that they are displeased with Solid Snake's apparent disregard for human life, but they might state (as BA) that they do not, personally, like killing people in games. So a player is negotiating a game such that they are the principal actor. "Were the things I did in this game acceptable for me?" rather than "Were the things the character I was controlling acceptable for them.". This first person nature of the negotiated reflections is most apparent for games which have no discernible characters or story, and is also telling where a game has multiple characters under a player's control. In this latter case the player talks about what they

did (such as JA deploying *his* troops) not what their units, tokens, players, or team members did. So in terms of reflection a player might well be reflecting on their personal first person (I killed the enemies or I scored a goal) experience rather than a purely impersonal third person experience (Solid Snake killed the enemies or David Beckham scored a goal). This first person form of reflection suggests that games are experienced in a wholly different way compared to films or books, and that the player's actions form the core of the experience and the main extent of their reflections. Some players might be comfortable personally assuming roles with morals distinct from their own (stealing cars and murdering rivals are fine in the context of playing the role of Tommy Vercetti in the shady world of Grand Theft Auto: Vice City (Rockstar North 2002) say), but not for others (sneaking up on enemies and snapping their necks to help Solid Snake uncover a global military conspiracy in Metal Gear Solid (Konami Computer Entertainment Japan 1998) is just unacceptable for some). Whether those who shy away from morally grey actions only do so in their game playing and not necessarily in the films and television shows they enjoy is impossible to say in this research, but it seems that even if the characters and context of the game are morally grey or satirical the fact that *they* are the ones being asked to kill or steal results in personal reflections of action.

Essentially then a player will remember obvious positives and negatives from the games they have played in the past. They will implicitly reflect on the relative value of these experiences, and will feed that knowledge forward into their selections of future experiences. These reflections can be modulated by influences outside the general experience of play, resulting in the player re-evaluating their imputed value structures in light of cultural evidence. This last point can be further illustrated beyond the effect of advertising with players explicitly negotiating with each other the merits of offerings. For

example my own conversation with CA (a close friend) where the formal norms of interview break down and I try and convince him to revisit Wipeout:

JS: *The difficulty level thing though…*

CA: *Yeah.*

JS: *Wipeout.*

CA: *I didn't really get into that.*

JS: *No?*

CA: *Nah. I did a little bit, when [a friend] got it, but…*

JS: *[something about having been into Wipeout for the Playstation]*

CA: *It's alright, but I think it's one of them games that you've got to practice a lot to get good at, because I just…*

JS: *It's not that bad actually.*

CA: *…smashing into stuff.*

JS: *…because the level you start off at is really easy. It's basically getting used to the controls.*

CA: *Maybe that's where I fell down, because I was playing with people that'd played it loads. Playing stupidly fast things and stupidly fast tracks.*

JS: *It's impossible.*

CA: *Just smashing from side to side which is not…*

JS: *It's like playing tennis against Tim Henman, you're just gonna lose until you get pissed off and put it down. I'm sure if you showed me Toejam, if you showed me one of the later levels I'd be like, "This is rubbish. It's pointless!"*

CA: *Yeah.*

Read as a conversation between two friends, discussing the relative merits of various games we can see that there is a reflective interpersonal negotiation. This negotiation is likely to then have an effect on future game selections and interactions in that if a close friend says that one would be the kind of person who would engage with (and 'enjoy') an offering, as long as I keep in mind this new and alternative reading of the merits of the offering, then I might be.

Another interesting example of reflections about past experiences resulting in a negotiated position is the implicit negotiation of DA, who after having completed Super Mario Land (Nintendo 1989) on the Gameboy over a period of time, came to the conclusion that playing games was of no value. How he came to select the activity as having possible cultural value is not known, but that he decided, having done so, that he felt that it was not a worthwhile activity is strongly stated in his interview.

> *DA: Oh, you know whenthe first Nintendos came out... Super Mario was it? Again, I did used to play that. I actually quite enjoyed it when it first came... because my cousin had a Gameboy... again, my cousin, ten years later... he had a Gameboy yeah the Gameboy thing... I actually quite enjoyed it... again for about a week – two weeks – three weeks – something like that... just thought "Right this is boring. Wasted way too much time. Got to do something else a bit more productive."*

Presumably he was engaged by the act of playing at the time, and the exact social conditions and explicit negotiations he has had subsequently are not clear, however I can state that this experience and his subsequent reflections on that experience have resulted in his assuming a position which can broadly be described as "I am not the kind of person who spends his time engaging in these activities.". Comparing this experience

with other experiences he has concluded that he finds much greater value in other activities.

So players reflect on what their past experiences of personally playing a game or games have been, and weigh up whether to go back and play again. Some players have resolved that there is no value in going back, while others have not and will return to a game or games in general with the sense that they are the kind of person who would play or continue to play.

6.4. Summary of key theoretical categories introduced in this section

1. **Total value, as a sum of identifications, is negotiated throughout the process of engagement**
2. **Such negotiations can be noted in selecting (such as when the prospective player is exploring possible features, the potential for group play, the potential for online play, or proposed challenge types), playing (such as when the player is trying a game out, actively plays a game for a while, exploring the ability to quit and rejoin the game gracefully, is subject to a changing context, develops investment in the game, develops social structures within or about the game, finds the degree of linearity in a game, shifts from engaging with stylistic to**

ludic features, and is considering multiple sessions of the game), and reflecting on past videogame play experiences.

3. **This constantly negotiated sum of value judgements drives an individual's engagement with and videogame offering**

7. Summary of theory

The three preceding chapters represent three primary hypotheses:

Sub hypothesis 1: In engaging with a videogame offering a player is finding a sense of net cultural worth, via personal identification.

Where cultural value may be expressed as the degree to which the individual feels they are “the kind of person who would engage in this activity?” in a similar way to Cooley's 'Looking Glass Self'

Sub hypothesis 2: A player's engagement with any videogame offering starts before they actively play it and continues into reflections about it after they have played it.

Core hypothesis: A player's sense of net cultural worth of any videogame offering is a negotiated state which varies over the course of their engagement.

Where obviously the Core theoretical category or hypothesis is a composite of the the two major contributing hypotheses (which are in turn composites of a wealth of other theoretical ideas and hypotheses).

This last core hypothesis is the ultimate aim of the CGT process. This hypothesis, and the contributing sub-hypotheses, can be said to be 'grounded' in that they have been semi-inductively derived from data from the domain of study. That is they are not selected and then subsequently validated against domain data as in an experimental methodology, where hypotheses are derived theoretically and then validated through testing against domain data. Rather the hypotheses derived from a Grounded Theory methodology are constantly data and theory triangulated and could thus be said to be 'validated' as they are derived. Thus we can say that these hypotheses have shown their utility in accounting for the primary concerns of game players, but have been derived in

a manner contrary to traditional, validative methodologies. That is the data driven method of derivation provides some confidence that null-hypotheses derived from those presented above will be unsupported by data.

So null-hypotheses of:

Null Sub-hypothesis 1: In engaging with a game, the major effect of that engagement is not due to the prospective player's sense of net cultural value via personal identification, but is rather due to some other effect other than net identifications.

Null Sub-hypothesis 2: A players engagement with a videogame offering is not influence by their formed opinions before play or their reflections after play, but is only formed during play with no reference to extra-game context or factors, remaining stable over the course of an interaction.

Null core hypothesis: A player's engagement with a videogaming offering is not primarily due to their negotiation of the factors of engagement over time, especially where that negotiation relates to that player's sense of cultural value in play formed as a summation of their identifications with salient features of the offering in question.

Evidently these hypotheses are a little too complex, containing too many clauses, for experimental validation. So any such attempt at reverse validation would require a degree of decomposition back to the expression of sub-sub-hypotheses of the order of easily predicated statements. These statements can be found in the theoretical chapter summaries. It was in constantly comparing (or triangulating) data and theoretical ideas, that lead to the development of these atomic statements or hypotheses which in turn lead to the higher order theoretical categories or hypotheses presented in this section. Due to the data driven nature of the method by which these atomic hypotheses were derived, no further attempt at validation is intended or desired.

However we should not preclude any possibility that these hypotheses could not be modified. If novel data, which was not recognised, thus not sought and included in the performance of the methodology, were to be identified, then it could be compared to the existing corpus of data and might potentially result in a modification of any of the hypotheses presented here.

Section C: Summaries and conclusions

8. An open account of the implementation of CGT

The following chapter is presented with the purpose of serving two functions.

The first function is to provide information about both my understanding of the CGT methodology and precisely how I achieved the results presented in this thesis (over and above the idealised process presented in the methodology section). With this information I hope that the reader can gain a detailed insight into the work performed and thus have an enhanced ability to evaluate the theoretical results.

The second function is to act as a guide to any reader interested in using CGT in their own research. The lessons learned in the production of this thesis were hard won over a number of years, and an open exposition of the procedures I employed and the lessons I learned may well help a new user of the methodology. Hopefully acting as a useful supplement to both the literature detailing the methodology itself and the literature containing the results of having applied CGT (but with little practical explanation of the practicalities of that application).

The first subsections of the chapter tell the story of how this research programme progressed. Explaining what practical decisions I made and what I actually did. From this account I hope that the reader will be able to evaluate the nature of the resulting theory while also gaining insights about what a CGT based research programme might consist of. The later chapters set out lessons learned from this process in terms of commonly misunderstood elements and how I have interpreted them, and possible difficulties a junior (specifically a Ph.D. student) researcher might face in following all the advice set out by Glaser.

8.1. Early phases

The selection of GT as a methodology was based purely on the received notion that the direction of the research should be generative and free from 'grand' theory (where such theories might exist). These promised features were attractive as I felt that there was no sufficiently 'complete' theory which really explained what was going on when players engaged with computer and video games.

At an early stage in the research process I had developed a potentially spurious research question. My understanding now allows me to suggest that in attempting to pin down my research in this way I was clearly influenced by the work of Strauss and Corbin (1998). This influence is quite understandable as my primary source on the methodology up to that point had been "Basics of Qualitative Research: Grounded Theory Procedures and Techniques"; which is commonly available, and being co-authored by one of the originators of the methodology and seemingly a good 'cook book' for the practical application of GT. It is probably the most commonly referenced book on the subject.

So in taking a summary view of Strauss and Corbin and an interpretation of the academic requirement for (at least tentative) validation of results and accountability, I began by applying the following procedures:

- Perform an extensive open interview with a known games player (recorded to MiniDisc)
- Transcribe the entirety of the interview, in longhand, to a transcript book
- 'Code' by noting conceptual ideas for each sentence or phrase in the margin of the transcript book
- 'memo' by noting similarities between codes and possible logical sampling dimensions in a separate book of memos.

This cycle was repeated a number of times until it became apparent that the mass of different conceptual 'codes' and theoretical memos being developed produced an extensive paper trail which had the potential to quickly become difficult to manage.

8.2. Computerisation

In order to keep track of these codes and memos as the project went on I set about looking for a suitable piece of software with which to manage my research.

Atlas.ti (ATLAS.ti Scientific Software Development GmbH 1993) seemed to suit my needs best, as being designed with a conception of GT in mind it allowed me to tag data with codes and codes in turn with memos.

I then set about transferring my project into Atlas.ti. This transfer resulted in a rationalisation and remodelling of the codes and memos as they stood.

From here the remaining endeavour seemed straightforward: I would record interviews, transcribe them into a text editor, encode them line by line in Atlas and create memos about the codes and other logical ideas as they seemed pertinent. I would stop when the concepts being encoded were no longer new. These 'saturated' codes would then be categorised and structured into a network of concepts, or some other rational structure, which would then be my theory.

8.3. Discussing the approach at conference

It was when I presented this conception at a European conference that two excellent questions were asked. The first question related to my definition of “theory”. The second asked if I had identified a core category. My inability to answer either of these questions confidently had me rethink my approach and return to the literature on the methodology.

It was during this re-examination of the GT literature that I discovered the extent of the schism between Glaser and Strauss in terms of the fundamentals of the endeavour of generating a Grounded Theory. Key to this discovery and most instrumental in the later reframing of the project was my acquisition of Glasers' books Theoretical Sensitivity (1978) and Basics of Grounded Theory Analysis (1992)(both published by Glaser himself via his Sociology Press). The latter of these two books has Glaser critique Strauss and Corbin chapter by chapter, arguing at each step that Strauss (he dismisses Corbin's contribution) had failed to grasp what was intended by their early joint work (1967) and that Basics of Qualitative Research did not describe a Grounded Theory approach at all.

Whatever the details of this disagreement, and while Basics of Grounded Theory Analysis is laboured, bitter and at times evangelical, Glaser's critique of Strauss and Corbin highlighted pitfalls which I myself was starting to stumble into. Principally amongst these pitfalls was that the approach I had been taking up to that point was what Glaser terms “complete conceptual description”; an infinite concept naming endeavour. What I should be aiming for, and what was implied in the conference question relating to what my product should be, was a 'theory'. That is I should be trying to trying to develop a hypothesis which, as far as the data shows, explains or accounts for the majority of the variability in the domain; the 'core category'. This core category seemed a much more satisfactory target than some nebulous network of an infinite set of codes.

With this new target in mind I set about restructuring the project in Atlas to account for the need to develop strong categories of observations. By printing off all of the individual codes and physically clustering them into categories before renaming each in Atlas as a named property and associating each property into a greater code labelled as a category. By restructuring in this way I hoped to achieve a more categorical understanding of my data, more closely aligned with the focus on categories my refreshed understanding of

the methodology. Essentially I had taken my Straussian codes (as salient concepts) and categorised them resulting in a hybrid project neither completely Glasarian nor completely Struassian.

8.4. Speeding up

Once the project had been restructured by the sorting of conceptual codes I resolved to speed up the iterations. Part of this attempt at streamlining the project involved me recognising the new focus of CGT on comparative categories no longer noting 'interesting' concepts in the data, but only noting interesting new categories or new properties of existing categories (a much more Glasarian method of coding), which drastically reduces the the total number of codes. Another major departure from my previous methods was to eschew full transcripts and code directly from the data sources. That is I was using the facility available in Atlas to code from sources other than text. So I was recording interviews, converting the recording into a format compatible to Atlas.ti, loading the audio file into Atlas and coding by tagging sections of the audio with category or property codes.

As I performed a number of iterations in this way my memo creation activities were primarily concerned with the relationships between derived codes (as Glaser would term them 'Theoretical Codes') as well as occasional abstract theoretical ideas about how the whole project might be described.

As I sought further guidance from the Glaser's writing about the methodology I realised that this line by line analysis of raw data was too slow to enable me to create and analyse a broad spectrum of interesting comparisons in a reasonable time frame. So the coding became even more streamlined, tagging whole sections of dialogue with comparative codes, rather than just single utterances ro short exchanges.

8.5. Switch to field notes

As I gradually streamlined my procedures I began to see the merits in Glaser's preference for field notes rather than recorded interviews and observations. In taking field notes the researcher has already done a first conceptualisation; capturing the 'gist' of what the data collection iteration was about and what the subjects' concerns were. So the process is much quicker: field notes require very little preparation compared to any recording method (grabbing a pen and some paper to note down what someone just said or what was just witnessed rather than carrying around recording equipment and then obtaining the subjects permission to record their words and actions); field notes are mainly summaries of what was discussed and what the subject expressed and so are potentially shorter in number of words and easier to manipulate; and they are already textual in form making them easier to search and manipulate.

In essence field notes do the job of line by line conceptual analysis of raw data that is suggested by Strauss. Rather than picking through data to elicit concepts for further analysis the researcher explores the first order concepts with the subject and writes them down along with interesting individual positions, concerns and quotes.

This decision was not taken lightly. Having never used them before I was not confident about what should be included a field note. I was nervous that I might not capture enough of what was being discussed in an interview when compared to raw interview data. I was also aware that 'scrawls' in a notebook jotted down during or after an interview or observation are less easy to justify as 'evidence' later when compared to accurate recordings of proceedings. However, as noted below, as I began to saturate a reasonably narrow set of concepts these concerns were less problematic than at the beginning of the project where the concern of the data collection and coding was much

broader. Thus the benefit of the speed and efficiency of field notes outweighed the concerns.

As this realisation about the merits of field noting dawned I also realised that I had a candidate core category, and in moving to field notes I could more rapidly focus on this category in further iterations as I guided interviews to cover this concept more than others in order to achieve saturation. This went hand in hand with a stronger realisation that the categories discussed in the literature were codes. Rather than codes being conceptual descriptions of data they were interesting groupings of concepts. As field noting has done much of the conceptual analysis there is no need to invent a conceptual meaning for everything the subject says, instead the researcher is noting points of comparison within the concepts present in the field notes. Coding is not the marking of concepts, coding is the comparing of field noted ideas to develop categories of ideas.

8.6. Final Coding Iterations

As I interviewed subjects and created field notes, with the intention of saturating the core category, further advice from Glaser become pertinent and started to make real sense. Key amongst these ideas was the concept of the 'interchangeability of indicators' where saturating the properties of a category yields properties which are not distinct enough to be analytically interesting. One could quite happily swap any of the properties and still not modify the analysis. Saturation then is not to find every case that proves the concept, but to generate interesting conceptual categories supported by enough indicators or properties to be theoretically interesting. Categorical concepts are key, the indicating properties are investigated to determine if new categories are possible.

Saturation then becomes a saturation of ideas, as indicated by the memos collected, not saturation of concepts as indicated by the codes. This focus is again an example of focusing on features which are theoretically interesting, and while an attempt is made to

saturate categories such that categories are no longer being noted and a single super-category which accounts for as many of the other categories as possible is discovered, finding properties of these categories which do not themselves yield other theoretically interesting categories is not the aim of saturation.

With this conception of saturation realised I quickly found that I was developing no new categories, only new properties of existing categories, and while I didn't yet fully understand the extent of the requirement to memo fully, I felt that I had achieved some level of saturation in the project.

8.7. Sorting

When I felt I had achieved a good degree of saturation of the category of personal identification, which at the time I had identified as the (likely) core category, the next stage in the methodology was to sort materials into an integrated, coherent theory.

In discussions with other users of the methodology I found that sorting is often neglected, presumably being seen as unnecessary for some reason. This meant that obtaining advice on the sorting process would rely on my interpretation of the literature and not on the reported experiences of my contemporaries.

Returning to a close inspection of Glaser's writings I found that sorting involved structuring **memos** to relate to the core category while recognising that one is aiming for a written product. So in my case I was attempting to suggest the relationship between my memos and the core category of personal identification, with the aim of producing a thesis. While the category codes are important in generating theory, memos are the objects used to actually capture the theoretical thoughts and hypotheses.

In order to achieve this sort I converted my memo book into individual paper memos by printing them out and cutting them into strips. I then began to relate each strip to the

core category, trying to build up several main themes or chapters. It was at this stage that I realised that I hadn't previously fully understood the central position that memos take in the endeavour, and as such my memo book was potentially too thin to create enough material for a thesis.

With the existing memos partially sorted I set about writing (long hand on new strips of paper) down the theoretical ideas I had had over the course of performing the research, but had neglected to write in the form of formal memos. I also went back to the codes to determine if there were theoretical codes and ideas within them that might not have been fully represented in the memos so far. These new memos were possibly equal in number to the printed, existing memos, and gave me enough material to cover my broad theoretical position. Also as I progressed through the sorting process other memos were generated when I saw new theoretical relationships between the memos and within the emerging structure.

As the sorting progressed I felt that 'identification' was not an adequate concept to account for the memos as a whole. Accounting for this inadequacy by developing a new category of a shifting, negotiative progression of identifications I could achieve the best coverage; accounting for memos relating to the stages of engagement as well as multiple, possibly conflicting, points of identification.

8.8. Writing

The sorting process had left me with three piles of memos, which would be my 3 broad theoretical chapters (see above). The last remaining major part of the process was to write these into a coherent thesis. I realised that while I could break these piles down further into broad subsections, due to the short note style I had taken in my memoing, writing would not be a process of mechanically ordering memos into a coherent story, but would be a akin to writing a super-memo guided by the micro-memos I had literally

stuffed into a number thematic envelopes. Taking the memos as a guide as what to cover in my explanation of the derived concepts. Using codes to guide me to useful data to illustrate my points where necessary, the codes having done their job in the other direction and influenced the theory they would not need to be a central feature of the thesis. Indeed the structure of the codes and the sorted structure of the memos were now different, and so trying to represent both structures in the thesis would only serve to muddle the structure and the overall coherence of the theory.

Another element to include in the write-up was references to relevant literature. Glaser's advice is to consult the literature as sorting is being finalised and represent the knowledge gained as memos to be further sorted into the theory. Previously I had avoided directly relevant literature, as once I had begun to attempt to follow Glaser's version of the methodology I followed his advice and stopped reading new literature about theories of videogame play in order to remain grounded.

8.9. Apparent myths of GT from a CGT perspective

Having described the process I performed it is obvious that I have encountered many problems and held many misunderstandings as I proceeded. In my conversations with others and encounters with GT in the literature these misunderstandings (and ultimately the purpose of a grounded approach) seem to be more common than they should be, therefore I think it might be prudent to lay out my understanding of various elements of the methodology which often seem to be occasionally presented ways contrary to my present understanding.

8.9.1. GT is a qualitative data analysis methodology

While GT is concerned with the qualitative analysis of data, this is not the full purpose of the methodology but a feature of or method within it. This misapprehension is of particular annoyance to Glaser and he has co-written a paper specifically targeting this

myth (Glaser and Holton 2004). Essentially GT is a complete system of theory generation which takes a domain and seeks to evaluate the qualities of a number of sources of data relating to that domain in order to arrive at a hypothesis about the most powerful variable of that domain. Qualitative data analysis would commonly be understood as any single method for analysing qualitative data for some end or other, possibly within a tick descriptive methodology such as Ethnography, not as part of an integrated abductive methodology of abstracted theory generation.

8.9.2. GT is Inductive

While GT is purportedly inductive (Glaser and Strauss 1967), it has been a philosophical doctrine for hundreds of years that true induction as an epistemological position is not tenable. While the general experimental scientific methodology has taken a more deductive position to the development of theory, GT uses a somewhat inductive position, which in order to not fall foul of the problems inherent in attempting to understand the world inductively actually accounts for the deductive sensibilities of humans and results in an abductive or retroductive position. That is a theory is sought which accounts for as much of the data found in the domain as possible and is guided by that data to arrive at this position. So while, in rough terms, the experimental methodology collects hypotheses and then validates them through empirical means, GT generates hypotheses that should be well founded or grounded rather than experimentally validated. The quality of a Grounded Theory hypothesis is evaluated by how well it accounts for the data and as that data was collected with respect to a certain domain it is hoped that the hypothesis accounts for the variability within the domain, however the researcher's subjective impressions are explicitly used to form this theory, the theory does not arrive automatically from the application of the methodology.

8.9.3. GT coding captures the meaning of a datum which can then be compared to other implied meanings

No, coding in GT **is** the process of forming categorical concepts rather than categorisation being the step which **follows** coding. A category code should capture the connections between data not imputed meanings in isolation. That is not to say that only gross categories are captured. Where categories exist the variability within the category is captured as properties of the category. While meanings are important they are derived from the researcher's sensitivity to how data compare, explicitly.

8.9.4. The ultimate aim is to create a structured network of codes

Not as such. The **ultimate** aim is to arrive at a hypothesis which deals with the (more likely 'a') key dependant variable in the domain. This hypothesis will be supported by the mass of theoretical thoughts produced throughout the project (abductively) which will be supported by a semi structured mass of data comparisons in turn. So the basic theoretical unit is the code, but the working theoretical construction is the memo. How these memos interrelate as a mass is less important than that they can be sensibly related to the core concept.

8.9.5. GT is iterative, following the cycle of collect data > code data > memo codes

Partially true. The process of data collection and encoding is fairly cyclical, but memoing occurs throughout. It is also true that the researcher is trying to avoid logical elaboration and focus memos on the codes, but memoing a hypothesis or theoretical idea does not literally occur after coding and can (and should) happen during coding, immediately after data collection, during sorting and during writing as well as between coding and data collection sessions.

8.9.6. Coding is best performed via a line-by-line analysis of raw, transcribed data

In trying to build up comparative codes by poring over every line of a transcript, utterance in a recording, gesture in a video recording, or whatever raw data has been captured is cumbersome and slow, potentially missing some broad early themes in the mass of micro analyses. Glaser advocates field notes in his research and in reasoning about the merits of this practice in the light of CGT we can draw some conclusions. Field notes have the following advantages over micro-analysis: broad themes can be captured readily and simply; minimal equipment is needed; minimal effort is needed to bring them into a project (either paper based or computerised); they can be performed post hoc; they can be captured ad hoc; and they have an effect of performing a first pass conceptual analysis (using the researcher's sensitivities to determine what should be captured). While this approach has weaknesses (chiefly among them being the reliance on the skill of the researcher to produce good quality notes with minimal bias), the speed and coverage it allows quickly outweigh them. Where a line by line analysis is advocated is in the line by line, or point by point analysis of field notes, not raw data.

8.9.7. As GT is data driven, the data is the most critical aspect of the final presentation

GT is not a Hermeneutic or Phenomenological exploration of, and re-presentation of a domain. It is a method of deriving abstracted theory from a domain. Therefore the mode of final presentation does not seek to re-present elaborated data to expose truths therein, but proposes theory in the form of hypotheses for the reader’s consideration. The sense of quality for a Grounded Theory is not whether the study demonstrates true interpretations of data, but whether (in virtue of having been derived from domain data) the theory seems to **fit** the domain; is **relevant** to the actors or stakeholders of the domain; **works** in accounting for the domain in general, outside the data collected; and can be **modified** to improve fit, relevance, and workability in light of new data.

8.10. Challenges in applying CGT in a Ph.D. project

While CGT has many benefits for certain projects it does present problems in any academic setting more geared toward 'predictable', validative research especially early in a researcher's career. The following sections attempt to draw on my experience to elicit some of the issues and how they might cause problems for someone attempting to use the methodology in a Doctoral research programme, as I have.

8.10.1. There is little agreement as to what the Grounded Theory approach is

Possibly most apparent when one explores the disagreement between the originators (Glaser 1992). Almost every different account of GT as a methodology positions it in a different place relative to other types of research, and proposes different 'methods' with which to perform it effectively.

Potential Impact on Ph.D. Researcher

The mass of conflicting views can be quite overwhelming. Seemingly the most obvious solution to this state of confusion is to obtain the 'how to' guide published by one of the co-originators, which happens to be readily available from all major outlets, and work from that. Depending on what one is trying to achieve, obtaining Strauss and Corbin's well distributed guide could be either a curse or a blessing. I personally found that while it was instrumental in getting me started I needed to look elsewhere to find out where I was supposed to be going to achieve useful results.

Also in dissemination of the final product of the work, one can find that epistemological and methodological concerns of reviewers can derail attempts to present the resultant theory; papers and presentations becoming explorations of the validity of the methodology rather than the fit, relevance, and workability of the resultant theory.

8.10.2. Glaser advocates that one does not develop a research question at the outset of the research.

Validative research places great emphasis on placing the research in context as early as possible, removing this emphasis allows the research to explore the bounds of the domain of interest broadly and at will.

Potential Impact on Ph.D. Researcher

It is common, at least in the United Kingdom, to pass through several formal phases during the process of attempting to obtain a Doctorate by research. These phases require reports to be written outlining, in increasing detail, ones intent. It is common to be asked to provide a research question such that one's supervisory team can evaluate the likely contribution and success of the research. Rejecting this need would require a deep understanding of the proposed methodology and supreme confidence (from both the candidate and the academic staff) that a valuable result will occur 'in spite' of having no firm question.

I myself presented a very broad question when entering the final phases of the programme, but even this seemed a little bit narrow on reflection. I eventually took Glaser's advice and simply stated that I was researching the domain of players' experiences of videogame play. It did take time to move away from the initial research question though.

8.10.3. There should be no upfront literature review

In order that the researcher might avoid validating others' theories rather than developing one grounded in data, Glaser advocates that the researcher should avoid a review of the directly relevant literature before the sorting phase of the research. While a general reading programme is encouraged, to maintain sensitivity to theoretical

possibilities in the data, the domain literature is seen to have a detrimental effect on grounding.

Potential Impact on Ph.D. Researcher

As with the development of a research question, it is expected that early in a research programme one develops an understanding of the literature directly relating to the proposed programme, in order that it might evaluated in terms of position relative to the current thinking in the domain. To reject this need might not be seen as a benefit to building a theory from data, but rather poor scholarship, as if the resultant theory does not directly address the contemporary concerns of the field an expert in the field (rather than a domain actor) might ask why those concerns have not been addressed.

8.10.4. There should be no discussion of the emerging theory before it is written up

The argument here is that in discussing the theory with peers the inevitable feedback will influence the researcher and move them away from forming theory only from the data. Also in expounding findings a degree of the excitement of discovery will be lost, the researcher having spent their emotional energy relating to a concept in its exposition, becoming less fascinated with it later on. Discussions with others should be about methodology and methods, not findings.

Potential Impact on Ph.D. Researcher

Part of the process of performing a research degree is that one is expected to grow into the role of a researcher or academic; during this training one’s tutors and supervisors will want to evaluate one’s progress throughout the programme. In order to do this they need to know what one is doing, where one is going, and how much progress one has made. This 'requirement' is also a problem when one comes to engage with peers, in

that one might seem insolent in refusing to answer questions about what one is researching beyond a domain description and a methodology outline.

Another problem with this rule is that the means by which academics are evaluated is based in some degree on their publication record. If in using CGT an emerging academic has published far less material than their peers, then when seeking their first academic position they will be viewed less favourably than those that have followed a more traditional route, who may well be more extensively published.

8.10.5. The preferred method of data collection is field noting rather than recordings and transcripts

Glaser advises that one use post hoc field notes over electronic recording and transcription of data. This advice is intended to help the researcher maintain responsiveness to the domain (not being constrained by the requirement to carry recording equipment and seek permission to make such recordings whenever necessary) and rapidity in data collection (where the need to transcribe data is likely to slow the process of collecting and analysing data considerably). Also Field notes have the effect of forming the first level of theoretical analysis. If the researcher is not noting everything in the domain verbatim, then they will be applying their own sensitivities to what seems important and worthy of note.

Potential Impact on Ph.D. Researcher

In many traditional modes of research it is expected that the researcher will be able to point directly to data to prove or verify in some way the derivation of the results. To this end it is somewhat expected that a transcript of the data will be made. While field notes can be presented as evidence in a similar way, the preliminary abstractions they include results in them being seen as less reliable, especially where the researcher is learning how to become skilled in creating field notes.

This potential lack of skill on the part of the researcher would likely be true of a research student.

Indeed during my attempt at GT I started using transcripts for the reason that they captured more about the domain than I felt confident I would be able to put into field notes. In fact I wasn't sure what a field note actually was. Later in the programme though I did move to using notes rather than transcripts for the reasons outlined; that is speed and focus on a subset of the domain.

An interim period where I recorded interviews but did not transcribe them before coding proved to be problematic during the later writing activities as recordings proved more difficult to scan in order to extract illustrations for theoretical points.

8.10.6. Qualitative data analysis software is difficult to find with the flexibility to assist in the management of the CGT process

How one manages the data collected and the codes and memos developed is a fairly minor issue, but one that needs some consideration when starting a CGT project.

CGT requires extreme flexibility in the way resources are managed. Ideally any solution would help the researcher manage data sources, how data can be compared to produce categories, how these categories can have properties which are derived from the data, how these category and property substantive codes can themselves be encoded to create theoretical codes, how these codes can influence memos, and how these memos will need to be sorted by a process of fracturing and reforming in order to make the structure of a thesis.

The closest match in terms of functionality, at the time this programme was initiated, was possibly Atlas.ti as was designed with an interpretation of GT in mind

Potential Impact on Ph.D. Researcher

In this digital era much of the work of researchers is performed with computers, from data collection to thesis writing. As such it is likely that many of us would desire a computerised solution to performing many of the operations of the Grounded Theory methodology. I found that a compromise must be made between the convenience of having a computerised solution to manage the data sets and much of the analysis and printing products to paper to maintain flexibility when the software becomes too restrictive. This compromise might take some time and effort to balance. For example Atlas.ti applies a more or less Straussian (explicitly hermeneutic) conception of GT and as such it does not naturally support differentiating between categorical codes from property codes and does not support theoretical codes., but solutions are possible using the labelling of codes and memos in specific ways.

8.11. Summary of applying CGT

The Grounded Theory Methodology as related by Strauss seems reasonably straightforward at first. However when one attempts to apply a Glasarian conception of the methodology the process seems to be unduly vague in specification. It takes a number of leaps in ones understanding to realise that this apparent vagueness is in fact intended to be an expression of flexibility and that the researcher is encouraged to develop responsive personal strategies in their exploration of the chosen domain. Other than this requirement to 'get' CGT the advice given by Glaser intended to maintain grounding and minimise 'forcing' can present particular problems to a Ph.D. candidate. The combination of 'no talk', 'no research question', and 'no literature review' along with a general lack of understanding of the methodology by fellow academics can serve to isolate the fledgling researcher. These same features can also have the effect of placing the candidate at a disadvantage in some important respects relative to competing peers as they potentially attempt to complete their apprenticeship and become a professional

academic. They are likely to be relatively under published, under read, and may have formed fewer constructive professional relationships than those following a more traditional methodology which encourages direct engagement with ones chosen field from the outset.

While I feel I have an understanding of both a novel and powerful methodology, and the domain I have chosen to study, and would argue that CGT is a very interesting and powerful approach to generating theory, I would not recommend that anyone use it in pursuit of a Doctorate. Obviously where the parent department has extensive specific experience in CGT then my warning would be tempered, but the likely lack of engagement with others interested in the specific domain of study and their publications would still remain a concern.

It seems fairly common for researchers at this level to borrow features from GT (Fabricatore et al. 2002; Brown & Cairns 2004; and Sweetser & Johnson 2004) while still maintaining a scholarly connection with their chosen domain. It seems that a more Straussian methodology is more agreeable in this respect, and this closer match between the requirements of the individual researcher and the demands of the usually validative demands of academic rigour might further account for the popularity of Strauss's approach relative to Glaser's.

However, once I had understood a few of the features of Glaser's methodology I would not have been comfortable creating a boundless conceptual description of the chosen domain as Strauss seems to encourage in his version of GT, and felt committed to developing as full an understanding of CGT as possible and thence a good theory of videogame play, which explicitly related to a single key concept. Though I would implore Dr Glaser to collect a number of his publications into an easy to digest and commercially published guide to his methodology (including the inherent flexibility) so that those of us

who end up attempting to follow his scheme can more readily understand what we are getting ourselves into and can become proficient in the execution of the methodology much more rapidly than with the present arrangement of numerous self-published books and personal seminar tours.

9. Concluding discussions

This chapter is intended to round out a number of the things presented in the chapters above. The sections below explore if the theory seems 'complete' and 'good' according to Glaser's stated quality criteria (fit, relevance, and modifiability); where this theory might sit relative to other theories on similar topics; if this work might contribute anything substantial to any associated field; what the limitations of this contribution might be said to be; and what further work might be possible or useful from this position.

9.1. 3rd Party Reviews of the Theory (evaluation of Fit and relevance)

According to Glaser a 'good' grounded theory should demonstrate the qualities of 'fit', 'relevance' and 'modifiability'. 'Fit' being that the theory should describe the principal concern of the domain actors in a way which is obvious and readily identifiable by the actors themselves. 'Relevance' should be that it provides a view on the domain which allows the domain actors to frame their thinking about their domain in useful ways. 'Modifiability' is then the scope for re-framing the theory in light of new data or attaching new concepts to the theory to improve the fit and relevance for higher level descriptions or specific sub domains.

Obviously, having constructed the theory myself I am confident that it fits the data I collected, describing the principal concerns of players, and should then have some degree of relevance to secondary actors (games designers) in their understanding of the needs of players. However, my personal opinion might not match the perception of those active in the domain. In order to evaluate these quality factors I have attempted to poll the opinions of as many specialists as possible in the short period of time between writing the theoretical sections of this thesis and submitting it for review. This section summarises the findings of this small survey. The subsections which follow then pull in

the information gathered from this survey to help explore the sense of 'fit', 'relevance' and 'modifiability' of the work.

Using an online survey service (question reproduced in Appendix C) in combination with a short electronic slide presentation (Appendix B), responses were openly sought via a regional game research mailing list as well as privately sought from professional game developers and analysts. The respondents totalled ten individuals. Eight had attachments to academic research into videogame design and theory, while the other two were a professional videogame designer (PC, Console and browser games) and a professional usability analyst with experience of testing for videogame products (primarily console games).

The survey presentation consisted of a summary presentation of the 2 main supporting hypotheses and the core category itself presented as "A player's engagement with any videogame product is determined by their negotiated sense of the net cultural worth of that product". The survey questions were intended to explore if the theory was understandable and might be said to exhibit the qualities of 'fit' and 'relevance'

The first observation to note from the responses is that academically active individuals were understandably much more critical of the theory than 'craft' actors (those without theoretical training or interests, but commercially active in the production of videogames).

The small number of busy 'craft actors' who responded were generally positive. Able to paraphrase the theory effectively and encouraged by a theory which focuses on players needs rather than games as narrative or ludic objects, and commonly raised industry concerns. Their misgivings were that the presentation used didn't include detail as to what features players commonly relate to and a gut feeling that there must be 'hooks'

which are not socio-cultural in nature. One respondent was confident that these concerns were likely to be covered in the full thesis.

Criticism from the academically active respondents focused either on the level of the theory (obviously in a 10 slide presentation the focus was on the core hypothesis) and hence the utility of the theory as expressed at this level. One respondent felt that the core hypothesis was implicit in all games design including their own work in simulation, and such an explicit expression of this tacit concern presented no new workable or relevant knowledge. Another respondent struggled with the expression 'net cultural worth'. Overall however there seemed to be agreement that the theory expressed something potentially useful providing the hypotheses could be backed up with data or illustrative examples.

These findings suggest then that the core category should be expressed in terms which are easier to understand. Avoiding possible confusion with technical uses of certain terms seems essential without losing the essentially socio-cultural aspect of the realisation of personal value judgments, and stressing the continuously aggregated or summed sub-value judgements to develop a sense of the personalised cultural value of the experience. Perhaps an expression such as 'value seeking', while being at an even higher level than the core category as so far expressed, might in some way capture the sense that players are looking for experiences that are not 'a waste of time' or 'worthwhile'. The sense of value seeking is then supported by the two main contributing hypotheses of summed value judgements and continuous evaluation and negotiation.

9.2. Relevance?

To the 'craft actors' the theory seems reasonably relevant. With the provisos that the theory needs to be expressed relative to other concepts of engagement and illustrated

with clear examples. The two main respondents from this group (an experienced PC, console, and flash game designer and a user experience analyst with experience of analysing games) felt that the theory was quite useful in helping them frame designs relative to players' wants and needs rather than as isolated objects. The analyst felt that he would need the theory framing relative to other conceptions of engagement, but as a theory the core category was interesting and potentially useful as another method for understanding games and experiences under analysis. The designer suggested that such a theory which focussed on players rather than the games themselves would help him conceive the design problem effectively rather than focussing on the internal quality of the product, which he felt much of the current industry advice suggests.

In order to make the theory relevant to the intended audiences (critical players and active designers) any popular dissemination of the theory beyond this thesis should avoid technical terms and abstract expressions of the theory and focus instead on relating, with examples, the kinds of sentiments which were expressed by the interviewees in the construction of this theory. It might be necessary in this later expression to utilise 'in principle' examples outside of the data collected as part of this research programme, as the relatively small number of cases used to create the theory might not satisfy the audience of such an explanation. Rather the general hypothesis should be explained by how we might expect it to apply to a broader range of examples. As long as this output is backed up by academic and fully grounded work and qualified with provisos the real relevance of the theory would be expressed in how it might inform the design or critique activities of the industry professionals.

The traditional focus of a Grounded Theory is to relate the principal concerns of the domain actors back to those actors so that they might gain an insight into their own activities. In the context of videogame play I feel it is unlikely that a theory of

engagement will help players understand their own engagement in such a way that they could use this information to become more successfully engaged. As such the audience of interest is both academics, who might form new insights into the activities of players and generate useful theories for producing better products, and industry professionals, who might be able to frame their activities in a novel way and potentially be more successful in whatever videogame design projects they participate in.

As I will suggest later in this chapter further work entailing the continuous grounding and modification of the theory and possible attempts to validate the theory in specific design instances should help to satisfy the more traditional validative concerns of practical domain actors who might struggle to understand the utility of the grounding process

9.3. Complete?

In terms of the completeness of the theory, the respondents did seem concerned that the theory as expressed did not suggest which 'cultures' encouraged personal identification with games as they currently exist, and that there might be 'inherent absolutes' of engagement outside of any socio-cultural frame.

For example in response to the question related to 'fit' (Question 3, Appendix C) the following interesting responses were collected, with points relating to 'absolutes':

> *"I had never thought if it in those terms, but I like it. I think there is also much to be said for inherent absolutes in terms of games that are engaging. Some games seem to be inherently engaging and this is not a cultural feature. When the mood is right, people will embrace even the most unlikely games (grown men playing 'tag' at a wedding party, or old ladies playing grand theft auto on christmas day) as long as the rule sets for those games are well defined and understood. "*
>
> *Commercial research professional respondent*

"Explains part of it. It's fair as a reductionist analysis, but I suspect that there are other factors that come into play (pardon the pun) " Academic and videogame designer respondent

In terms of responses where the respondent raised concerns about the nature of the cultures being examined, the following responses were collected (similarly in respect to the question intended to explore 'fit'):

"not really - i find one of the key variables - 'net cultural value' - to be too vaguely defined to be of much use. " Academic respondent

"I can't really say, as I don't understand what "net cultural worth" means. I don't think it makes sense to "sum" (add) values (qualities) to get a "net". I'm also cautious about "typing" players. However, I appreciate that these explanations may summarise the responses you were given. " Academic respondent

In part these concerns are an understandable failure to comprehend that for the last century or so individual identities are considered to be socially formed into cultural structures at a unique and personal level (Cooley (1902), Mead (1934), and so on) and that the theory is intended to express the primary concern of all game players rather than sub-sets of players, as well as a failure to understand that I intend the theory to account for much of what is going on in the domain, not necessarily all. However I will argue that some conceptions of engagement, such as Flow, are in fact predicated on concepts of value which are socially derived. That is not to say that for some users challenges, tempo, or progression say are not important, but that the relative engagements for these players must be framed in some way. Why does a player value a complex challenge? Why does a player demand a slow tempo? The theory presented in this thesis suggests that the variability in player's engagements with these features (as much as surface features such as the narrative, rule set, or playable characters) is

cultural and framed by a sense of identity. As suggested in the previous section in order to make the theory accessible, in future disseminations it may well be necessary to take common concerns such as these and express examples of how players might see themselves as the kind of player who would (or would not) engage with a game with such a hook or feature as the overriding factor in engagement. Take challenge as a commonly expressed example of a behavioural driver which might sit outside a cultural dimension. Even if we apply a simplified understanding of Flow (Csikszentmihalyi 1990) where the challenge must match the player's skill, this match is only a single factor in an aggregated identification profile. That is it is not that a game is simply too hard or too easy for certain players; a more deep reading of the literature on Flow reveals that while it might be in a particular player's power to meet a challenge, it is in fact whether the player places value in overcoming the challenge (if the end result is 'meaningful' to the player) that determines the amount of effort the player will put into overcoming the challenge set. This attribution of meaning (as in what the feature might be said to represent) and ultimately value is not a mathematical relationship between the difficulty and the players capacity to overcome it, but a complex aggregation of values. It is this aggregation of values which my theory has settled upon and which this thesis sets out to explore.

Also, this sense that there must be something else at work seems to be a sense that socio-cultural behaviours are underpinned by something more powerful giving rise to 'inherent absolutes'. Hopefully this full thesis shows that any such hard-wired behaviours operate at a cultural level or can be overridden by socio-cultural values.

So the question of whether the theory seems complete is obviously bound into the question of the theory's 'fit' which will be explored below, but I feel confident that with a

few clarifications and examples the work could be said to be complete enough to provide an interesting perspective on videogame engagement.

9.4. Fit?

The consensus of the survey respondents suggests that the theory seems to fit the domain it accounts for reasonably well. The respondents to my small survey seem to feel that it expresses much of what occurs in players' engagements with games. While they have existing concerns from industrial literature, academic writing from other domains, and craft practice which they feel would need to be covered off in any future explication, there is a loose agreement that the theory does indeed explain a great deal about how different players engage with different games in different ways. In that of those that felt that they understood the theory as it was presented well enough to attempt to paraphrase it also felt that it did indeed account for much of player engagement (4 respondents including both the videogame designer and the analyst). As suggested in the subsection relating to relevance, the deductive concerns raised will need to be related to the central hypothesis, but I am confident that, in the main, this is possible, and I will attempt to do so below to some extent. It is also likely that in performing a broader dissemination of the theory it will need to be modified, adjusting conceptions of culture, identity, videogame, and what is intended by the negotiative process in order to improve understanding and ultimately fit. Such a modification (as suggested below) is perfectly acceptable, and would be beneficial rather than destructive to the theory.

9.5. Modifiable?

A well formed grounded theory is never 'correct' or 'complete', rather it accounts for the data collected. As more data is collected beyond the completion of this thesis it is perfectly possible that the theory should be modified. Indeed even in the sorting phase of the research it was found that aggregated value alone did not account for a large

portion of the memos which dealt with resolving or negotiating different value judgements at different phases or stages in an engagement and that only by merging these two ideas were most of the memos and codes covered by the core category and hence this thesis.

Also just as the final 'fit and relevance' survey has raised questions about how the core category and the categories that support it should be presented, it is quite possible that the act of presenting the theory to others will raise theoretical questions which might result in further directions for investigation. These directions could, in turn, generate more data, which may be more diverse, for encoding, memoing and ultimately integration into future iterations of the theory.

Further investigation of the nature of the negotiation players perform, with both real people and a sense of a generalised other, where the imputed judgements overlap with real opinions of others, might well adjust the concept of progressive negotiation as it is used in this thesis. Similarly different points of identification and evaluation and how they are applied by different individuals to different types of game experiences might re-frame the “Am I the kind of person who would play a game with this feature, in this configuration, in this context?” sense of socio-cultural identification, and hence the influence this category has on the theory as a whole.

It is true that in terms of theoretical sampling massively multiplayer online (MMO) experiences such as Massively multiplayer online role playing games (MMORPGs) like World of Warcraft were only invoked by the interviewees as experiences that they felt they would not seek. Rather the data collected was primarily related to offline play (both solo and physically co-located multiplayer). In terms of the emerging codes and theoretical concepts this was fine as an exploration of the 'cybernetic' societies created in many MMOs might have exploded the theory into one about online societies and would

have lost some of the fit and relevance for offline gaming. That is not to say that a future exploration of MO, MMO, and MMORPG play and surrounding attitudes could not be specifically performed and integrated into the current concepts.

Another point to raise and a possible area for modification is that the subjects used in interview were, while of varying age and holding differing attitudes to gaming, exclusively European and predominantly British and as such the theory is substantively grounded in Western European attitudes. It would be remiss to assume that these attitudes could be formalised out to all societies and geographical cultures. In exploring attitudes which might differ from those encountered in the research as it stands further modification of the theory might be required.

Overall though, I am confident, in virtue of the way the core theory is developed from a broad spectrum of grounded concepts, that any adjustment to sub-elements of the theory will have minor knock-on effects for the theory as a whole. For example an earlier conception of the process of engagement (Salisbury & Fields 2004) had different phases which didn't account explicitly for reflection. If this conception were still being used, the cyclical nature of the negotiation would be less prominent and as such the core theoretical concept might read something like "Engagement as a discovered identification of net cultural worth". While close to the theory actually presented here there are obvious subtle differences. Any future modification would be expected to be a similarly subtle evolutionary re-framing rather than a revolutionary scrapping and starting from scratch.

9.7. Limitations

At this point it seems prudent to clearly state where the limits of the research are, before setting out, with these limits or limitations in mind, what the overall contribution is felt to be.

It must be stressed, in a discussion of the limitations of the research, that the theory presented is about potential players' relative engagements with games, and nothing else.

Drawing conclusions outside the substantive domain would not be grounded, even if they are tempting. So accounting for, say, the design of games can only be addressed via the perceptions of players and not via the perceptions of designers. Similarly the way people engage with other, related technologies is also outside the scope of the work presented here and so I would not make any claims to that effect.

The construction of the theory was parsimonious and the work should not be read as an exhaustive description of all the factors that might influence all players' engagements. Rather the core and supporting hypotheses are based on what seemed to be enough data to make enough comparisons to develop a general theory via the structured methodology employed. As such any recommendations for practice which might be developed from this work are in the form of high level points of consideration rather than actionable heuristics. While I have some evidence that these points of consideration might be of interest to professional designers, I also believe that the lack of a clear guidance grounded in design practice might limit the audience to those practitioners who take a reflective approach to their work.

That is, the theory as it stands demonstrates a degree of 'fit' and 'relevance' to the domain of videogame play, with few claims as to the utility of the theory to interested parties other than game players themselves.

Another point to stress is that in side stepping stereotypes of players and demographic indicators, the theory does not actively engage with sociological thinking. That is not to say that there is not a connection, rather I have not made any broad statements as to which demographic groupings might suggest certain identities and cultures which might

influence the general engagement with games such groupings might have. The idea that groups might hold common values is not rejected, rather I have not tried to map how we might segment populations into such groups or the totality of the identities and values within them. An indication of what 'kinds of people' feel what about what game features is then opaque other than the few illustrations I might have in the data. These few illustrative examples are not enough to tolerate a numerical validation, but gain their utility from their ability to influence the abstracted hypotheses. The means by which the research should be judged then are by the methodologically significant 'fit', 'relevance', and 'modifiability'. That is do the hypotheses fit the data; does the theory grab those it is describing as a good account of their concerns; and can we apply the theory to work in many different variations of the domain? The research implicitly tried to cover a few demographic variables such as age and gender, but as the core category emerged it become increasingly obvious that more arbitrary differences (different nationalities other than the predominantly European say) would not change the shape of the core category or it's supporting hypotheses.

A final limitation is that in trying to account for the data without too much reliance on 'grand' theory, the technical and academic language has been minimised in favour of plain language. As such the work might seem insufficiently technical to readers from related academic fields. I have had feedback on my final sorted hypotheses and some of these responses questioned my usage of certain terms such a 'culture', 'value', and 'engagement'. While I have attempted to lay out my usage where necessary, the way I have used most of the terms in this thesis in their commonly understood senses might appear to lack precision to some.

9.8. Contribution

Taking into account the discussion of related theory and the limitations of the work, this subsection explores what the contribution of this thesis might be. In this subsection I will explore the major themes of the theory and how they might be said to be novel expressions in the specific substantive domain of videogame play research. I will also explore how the use of Glaser's Classic Grounded Theory to this specific domain could be said to be fairly novel in this domain, and a contribution to the wealth of attempts to employ the methodology in general.

9.8.1. Overview

This research has focussed on the player experience, attempting to find a unifying or 'core' theme in the data gathered by interviewing and interacting with those that encounter games in their lives, and what it was that engaged some people to become players of certain games and not others.

The resulting theory, that players are negotiating an aggregate sense of value in their leisure activities, specifically playing videogames, has some features in common with existing theory, but is unique in that it stresses that engagement with a game is contingent on the 'Transaction' (as McCarthy and Wright have expressed it) of expending certain valued factors in order to gain pleasure from others. The difference between my theory and that of McCarthy and Wright is that I highlight that the 'costs' are not fixed, hence it is not a single transaction, but a continuous negotiation of and through the experience of encountering, playing, and reflecting on the offering. For example the difficulty a player perceives in playing a game is modulated by how much the outcome of overcoming the challenge encountered is valued. As Juul highlights, this may be a consideration during (rather than before) play, but I will stress that the sense of value of

the experience, as a function of how the player identifies with the aggregation of the experience, is summed across the entirety of the experience of a gameplay offering.

The constant negotiation of the sense of cultural value (remembering that personal, cultural, and social are all different perspectives on the same system of values, mores, and habits) provides a sense of relative worth, which may lead to engagement when the sense of value is sufficiently positive.

There are some assumptions implied in this work: that people ascribe representational meaning to just about everything they encounter, including games; and that the meaning of a thing will be contingent on the context in which they encounter that thing. I feel that these assumptions do not invalidate the observation that people also ascribe value to those things, in that they interpret the meanings in relation to their own system of values and goals (their personal culture or identity), and this identity, while mutable is also relatively stable across contexts.

9.8.2. Identity values driving engagements

There are also other areas we might examine, such as the psychology of reward schedules, or the influence of tempo on the response of a player. However these examinations assume that a player is already playing in an agreeable context, whereas I have highlighted a view that for the player to get to the point of playing in the first place (or return to playing) they must first see the value in doing so.

So how can this theory inform the work of others? It is my belief that, practitioners should realise that potential players must not see playing their games as a waste of time, a culturally empty or worthless activity. Fortunately Nintendo started marketing the Wii console during work on this thesis, and, for a certain kind of player, have subsequently shown that if the games are constructed in a certain way and aim to provide value in ways that non-traditional players can identify with then people will play

them. In Nintendos' case they provided two non-traditional positives to players: that the console can be used by everyone in an 'inclusive' way, marketing the playing of games rather than the games themselves and incorporating a mimetic control system which seems initially 'easier' to operate than pushing buttons; and promoting games with supposed health benefits such as Wii Fit (but even the mimetic control system itself might seem to be more healthy than traditional mechanisms). In doing so Nintendo have shown that the values of traditional videogame players (or 'hardcore' players if you prefer) are not the only possible values to consider in the design of 'interactive entertainment products' or videogames. If we look further at other people who reject games, we can still ask ourselves about which values are games still not supporting. As mentioned in previous sections there are those who do not engage in games because they seem to feel that there is insufficient cultural cachet in doing so. Either they feel that they cannot learn anything useful from playing, or the arbiters of 'cultural taste' have not sanctioned them as sufficiently valuable to engage in (e.g. Mark Kermode, a respected film critic and broadcaster, wrote in his Guardian column on 11th December 2009 entitled "Do violent computer games turn us into killers?": "What I know about videogames wouldn't fill the back of a postage stamp. I don't play them and probably never will.").

So design practice which takes into consideration who the prospective audience see themselves as, external to the identification with in-game characters could result in alternatively rich play experiences and potentially appeal to a greater audience of players.

In terms of theoretical relationships between my work and that of others in the field, much has been published on player identities; either the formation of identity through engagement with games (Gee 2003) (Raessens 2006) or the relationship between

demographic indicators (i.e. gender, age, or race) and factors of engagement with games. In the first instance the theory presented here might be said to go some way to repositioning the argument from identity formation through play to play driven by existing identities, and in the second instance from gross demographic indicators to subtle cultural indicators. So a player might be influenced by a game to see them self in a certain light, but in order for them to play the game in the first place they must have identified them self as a player beforehand. How we ascertain this pre-identification is not by what gender they are, say, but by examining the possible cultural indicators that exist in the relationship between the player's identity and the experience on offer. True, this relationship might include a raft of demographic stereotypes and archetypes, but is just as likely to include such indicators as degree of affinity with technology; past experiences of playing games of different types; previous experience with similar fictions, narratives, and representations and all other culturally significant factors which go into making a sense of personal identification relative to the experience and thus a cultural value system. Whether we try to summarise these factors by gender, class, education, number and sex of siblings, occupation of parents, race, nationality, income, sexuality, or any other socio-cultural grouping we would be doing so as an analytical, stereotypical catch-all.

9.8.3. Focus on the enculturated individual

In the exploration of 'culture' in the sense that studies are made of 'gamer' cultures, or 'game cultures' (these being the social groupings and associated sub-cultural values and habits of game players in specific contexts), the theory presented allows an analysis of what features of gameplay social groupings such as these reinforce, and what influence individual identity has on the formation of these groups. It allows us to ask if such communities are groupings of players who commonly engage in the same games and gameplay styles or are more sophisticated social cliques born of a greater cultural value

system with the playing of certain games as a symptom or factor in this sociocultural coming together. This is not to reject the study of 'game cultures', rather an encouragement to view these cultures in a broad sociocultural context.

9.8.4. Stressing value over meaning

In terms of the semiotic interpretation of play or games, the direction of this theory stresses that it is less important to say what a semiotician feels the semantic meanings are implied in an offering and more important to extract the pragmatic meanings applied by players to features they feel are salient. So in looking at who players feel they are and how playing might express these identities we shift emphasis from the theoretical top-down analysis of the determination of meaning and hence value by reading the game as a form of 'text' to a more empirical examination of of the perceived value of playing a game, to players other than ourselves, as a form of activity or experience. We can then explore the the salient values in terms of the meanings subjects apply to the features of a game and thence question where these meanings are formulated.

Take the oft analysed (e.g. Kennedy 2002)Tomb Raider (Core Design 1996) as an example. What is significant about this game? Is that the player character and protagonist is a young woman rather than a man? Did the players who made this game into a huge hit on the original Sony Playstation consider this to be a significant factor? Would we have noticed the gender and presentation characteristics (a highly stylised character model) of the player avatar if the game had been poorly received and sold few copies? Was it the characteristics of the player avatar which engaged players and made it such a success? How will we know without asking players? If we were to ask the question “What is it you enjoy or dislike about Tomb Raider” and the sex and figure of the avatar are not significantly mentioned by those polled, is it still a useful analysis to stress these features over others? It can be argued (Aarseth 2004) that Eidos's

marketing of Lara Croft as a character was seen as secondary to the main attractions and distractions provided by the game. Indeed surely she came about as a means of producing a character who was emphatically not Indiana Jones while allowing the player to have “Raiders of the Lost Ark” style adventures. If the game didn't engage as a 3 dimensional action adventure with puzzles, in levels that span classical antiquity, then a discussion of the gender of Lara Croft and if she is a sex object or feminist symbol would be moot, as few would have noticed her existence. Some players may well have responded to Lara as either a sex object or a symbol of female independence and power. Indeed Toby Gard, the designer responsible for initiating the Lara Croft design, purportedly intended her (once it was decided not to use a whip wielding male character) to represent a strong, independent, street-wise young woman (Laura Cruz). Interestingly Gard supposedly left Core Design after a disagreement about design freedom, including a disagreement about the 'sexing up' of Lara Croft. So in terms of design intent both feminist and sexist positions are supported. However whichever she is perceived as is subjective and potentially has no bearing on the enjoyment of the game for a great many players. Critically stressing any single viewpoint or over-stressing the meaning and value of the character in such a game as Tomb Raider then emphasises subjective 'readings' of the meanings and de-emphasises the experience of playing the game and the space of possible meanings and values that might well be invoked and thus the relative values that might be applied to them by players. My theory suggests that games are engaged in by a process of value seeking, rejecting the deductive, critical imposition of meanings and thence value judgements upon factors of the game offering in favour of empirical exploration of the values of players themselves.

Likewise semiotic semantics can be reconciled with a more pragmatic philosophy by stressing that the questions we ask of and conclusions we draw about the meaning and values present in games must be about what is thought and felt about the game's

features by the prospective audience and how we can use these insights to inform theory or games design, rather than what one personally thinks about a selection of game features and how these might be reconciled with political agendas or grand existing theories. It is the process of negotiation of value which describes engagement at its highest level that suggests this audience centric view. A synthetic, hermeneutic approach to understanding games that does *not* account for the values and feelings of a broad spectrum of prospective players and how these values interplay or aggregate to create an overall judgement is then incomplete and weak.

So to summarise where I think my contribution lies I will highlight the following points:

- That engagement with a game is contingent on the player identifying with the game. That is the player must identify themselves as the kind of person who would play such a game.
    - Identification is a process of personally identifying cultural value or worth.
    - In identifying value in an offering a player is making an investment, both in using 'resources' to gain a 'reward' and of the game as a culturally significant object.
    - The investment is not a singular transaction but is a constant negotiation of a value space.
- That researching game players' engagements independent of studying specific games is possible if one considers the identities and attendant values potential players bring to the experience of playing.

Where these are points of interest in the overall contribution of the theory which has been summarised as:

- Players ascribe value to personally salient features of games

- The salient features are valued according to how much the player feels they are the 'kind of player' who would or would not engage with that feature.
- These value judgements are summed, resulting in an aggregate or net value of the offering to the player.
- This net value directly drives engagement positively or negatively.
- Players do not engage with a gameplay activity suddenly, mysteriously, or spontaneously, without considering the context of that engagement
- A process of engagement usually occurs which includes phases before and after actual physical game playing
- Prospective players select gameplay activities based on such things as the suitability for a context, specific features, or familiarity
- Players discover suitability, features, and familiarity by methods such as polling the trusted opinions of others, engaging with marketing, associating the gameplay activity to others, by relative availability of the activity or product, or by actively trying the activity out.
- The factors the player selected (and engaged with) are then constantly evaluated, in context throughout play.
- When play is not physically occurring the player is explicitly and implicitly reflecting on whether the gameplay experience (or experiences with features in common) as so played still meets the entertainment requirement it was selected for.
- Total value, as a sum of identifications, is negotiated throughout the process of engagement

- Such negotiations can be noted in selecting (such as when the prospective player is exploring possible features, the potential for group play, the potential for online play, or proposed challenge types), playing (such as when the player is trying a game out, actively plays a game for a while, exploring the ability to quit and rejoin the game gracefully, is subject to a changing context, develops investment in the game, develops social structures within or about the game, finds the degree of linearity in a game, shifts from engaging with stylistic to ludic features, and is considering multiple sessions of the game), and reflecting on past videogame play experiences.
- This constantly negotiated sum of value judgements drives an individual's engagement with and videogame offering

9.8.5. Applying Classic Grounded Theory

In terms of the contribution made relative to the methodological approach taken, the application of CGT to the broad domain of videogame play is novel. While other researchers (e.g. Brown and Cairns 2004) report having used a Grounded Theory approach in their studies, none report having done so with the full range of procedures advocated by Glaser (including entering the domain without a research hypothesis, open and selective coding to saturate discovered theoretical concepts, identification of a core theoretical category, and sorting theoretical ideas into a coherent theory). As such the attempt reported in this thesis contributes to the knowledge base of the methodology as well as the domain studied.

The chapters of this thesis which deal with the methodological selection (2.1.) expand on why this methodology was employed and not another. The successful application of the methodology yielded results which demonstrate a degree of fit and relevance to the domain experts surveyed in the small follow up study, and the result shows

commonalities with the broad sociological background. There are however areas which may benefit from further theoretical saturation and thus modification of the overall theory. The following section (9.9.) which expands on the possible directions for further work and the earlier section (9.7.) which deals with the limitations of the work will hopefully help the reader understand how complete this theory is and how successful the application of CGT was in terms of deriving an interesting theoretical product. Other areas of the thesis, which deal with how the methodology was actually employed and understood (2. And 8.), serve to expand on the practical implications of attempting to employ CGT in a research programme.

Hopefully this discussion of the methodology will help readers decide if CGT is an approach they could employ in their own research, and if so act as a partial guide to some of the key principles. Any insights taken from this attempt at applying CGT must recognize that it was attempted by a researcher from outside the 'tradition' of GT, and as seasoned practitioners have pointed out (McCallin, Nathanial, and Andrews 2011) such an attempt is likely to be fraught with problems. Of those problems that I am able to reflect on at this stage, I have attempted to express them so that others can reflect on and learn from them.

9.9. Further work

I must stress again that the theory expressed above consists of a number of hypotheses not 'facts' or necessarily axioms. As such it could be argued that they are untested. Glaser might argue against such a move (1978) as the methodology should have developed a 'good' theory by virtue of its data driven, semi-inductive nature. Surely then any validation would, as far as the methodology is concerned, generate more data to further saturate and potentially modify elements of the theory? That might be the case, but no matter how modifiable the theory, and relevant and useful to those within the

substantive domain of game playing, some readers are bound to insist on a more traditional process of validation before they believe the findings. Any attempt to validate the hypotheses of this theory might prove to be challenging. How does one map out an individual's sense of identity? How would one determine the values that this individual culture holds? How do we interrogate the individual's sense of the semantics of the experience without forcing personally deduced assumptions? How would we separate these semantic or semiotic meanings from the values they invoke in the player? How would we observe and potentially measure all these meanings and values in a potential player throughout a potentially broad and protracted engagement as hypothesised? That is how could we observe and measure their values and interpretations of meaning from before they have any knowledge of what we are interested in, to how their reflective interpretations of the value of the experience influence all future interactions and possible engagements?

A means of testing these aspects of the hypotheses may be possible, but would certainly not be trivial. For example we might imagine that we could design a survey to interrogate a well chosen social group with an apparently strong sense of cultural conformity (a sense that individuals hold very similar identities and values) in order to find out what they value, what they play, and how they communicate this play culture amongst themselves, in order to see if there are any useful correlations in this data, and if these correlations support of reject the stated hypotheses. If this were possible we might try to design multiple surveys to be delivered over a period of time in order to try and capture the ongoing negotiation of value in some way.

We might also try to validate the theory experimentally. For example we might try and measure the influence of self-identification on selection and initial play engagements by surreptitiously exposing the test group to a number of images or performances of lots of

people 'like themselves' engaging in play and the game in various ways (playing, spectating, discussing) before taking a measure of their engagement, such as time voluntarily spent playing, money spent, or subjective rating of 'goodness'. It might seem as if this experiment is already being performed by the industry. For example Nintendo's marketing of the Nintendo Wii and associated games focuses on showing friendly, familiar faces enjoying the games in nice, familial settings, presumably accounting in part for the apparently good sales of the console even though this is not the traditional mode of marketing such products.

Another type of experiment might attempt to resolve the relative weight (and if such a relationship exists) of the various gross factors of a game on players' engagements by developing a series of games which differ along the dimensions suggested by these factors, in a similar way to that of Malone (1981). So say a set of games where it is possible to alter the presentation without changing the rules or challenge structures would be the simplest example. More complex examples would be to create games with a similar presentation but with differences in the mechanics, rules, and challenges or any other possible combination of design choices. These games could then be tested for capacity to engage in some way (time or money spent, or rating) and the degree of engagement compared with the degree of adjustment in the dimensions. Such an experiment might also be said to be an ongoing project by the games industry, with companies constantly looking for designs which might result in more sales; tweaking presentations, narratives, themes, challenges, rules and mechanics.

Related to these possible attempts at pure validation would be to examine the workability of the theory by engaging with designers to find if by considering players' quests for cultural value they could develop ideas of use to their practice, and possibly result in their designing more engaging games.

Outside such attempts to validate or operationalise the theory, further work in integrating the theory into the broader corpus of related knowledge would seem wise. As the literature is reviewed, theoretical constructions and related hypotheses will continue to emerge in relation to a theory at such a high level of abstraction. Many areas of study have points of similarity, such as Bakhtin's 'centres of value' (as invoked by McCarthy and Wright (2004)) or Juuls stages of engagement (2010), as demonstrated by the literature review section of this thesis. Part of the ongoing project then is to engage with these areas of knowledge and find further insights in the points of similarity and difference between them and the grounded hypotheses.

Beyond validating the theory or integrating the theory into other related areas it would be interesting to modify the work, using CGT again, to account for a broader domain. For example it would be interesting and potentially useful to perform a CGT for the production of games, rather than the reception. What are the chief concerns of designers and producers in the industry? If we could develop a theory related to their concerns, as we have developed a theory related to the concerns of players, would we then be able to integrate the two theories into a statement of what it means to be a successful designer, engaging audiences in an effective way, and how their concerns contribute to or detract from their ability to deliver engaging experiences.

In terms of performing more CGT, the current theory seems to have reasonable fit and relevance, but there is the possibility that the theory could be improved. For example the theory deals poorly with examples of players playing a game they ascribe with no explicit value. In the data collected, DA stated that he played Super Mario Land on the Gameboy. He did so because it was lent to him and he had nothing better to do, and on reflecting on the experience he felt that it was mindless and a waste of time, but yet he played it extensively over a period of several weeks. That is we might argue that he

reported having found minimal value in playing the game and yet he obviously engaged in it at some level. There is something here worth exploring, as while we have a theory which says that DA found no impediments to playing this game initially and hence only minimal negative value or investment, other than a small suggestion of curiosity my theory struggles to explain why he might consume the game so obsessively, as he seemed to have no positive value driving him to do so. While this lack of positive value accounts for his current negative stance on playing games, as equivalent to mindlessly surfing television channels, there is an obvious issue that the theory of value seeking by identification with features addresses poorly.

In summary there are many directions this work can now be taken: validation, operationalisation, integration, or iteration, and any one of them will make the theory stronger and more useful.

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Appendix A: Data collected

Designation	Subject description	Survey notes	Data analysed	Sampling notes
KA	20 something, female, graduate	Open interview in subject's own home with reference to collection	Full transcript	Opportunity, occasional game player
JA	30 something, male, graduate	Open interview in subject's own home with reference to collection	Full transcript	Opportunity, more than occasional game player, male
CA	20 something, male, professional	Open interview with pre-interview request to select several 'good' and several 'bad' experiences	Full transcript	Opportunity, known to enjoy different games to KA and JT
GA and JB	High School age (Teenage (GA) and tweenage (JB)), sisters	Open interview in subjects' own home with reference to collection	Audio file	Opportunity, younger than previous subjects, on the fringe of researcher's social group
DA	20 something, male, performing artist	Open interview in subject's own home focusing on user's general attitude to games and gaming	Audio file	Selected as stated gameplay sceptic
OA	30 something, male, creative industry worker	Open interview in subject's own home with reference to collection	Audio file	Selected as known to be a recent game rejecter (with extensive prior video gaming

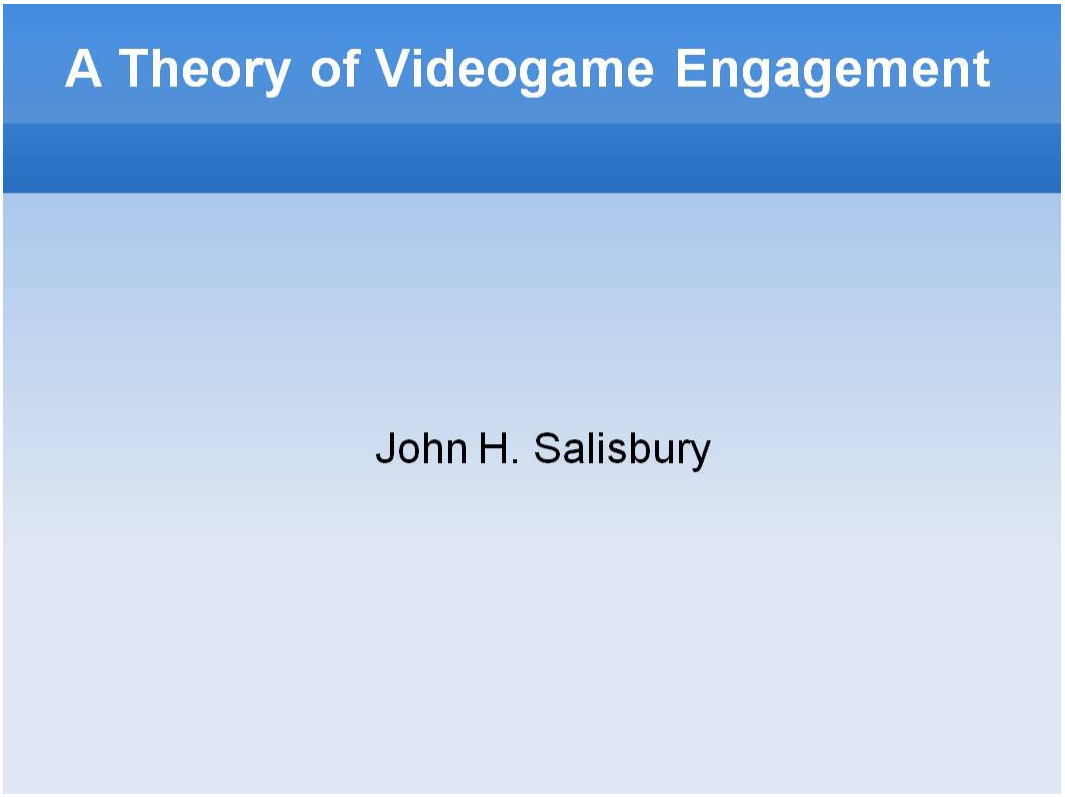
Designation	Subject description	Survey notes	Data analysed	Sampling notes
				experience)
NA	20 something, male, postgraduate	Open interview in subject's own home with reference to collection followed by an attempt to observe games he had obtained, but had not played, which had been discussed in the interview	Audio file	Selected as PC gamer, down loader, and Greek national
MA and DB	50 something female (MA) and tweenage son (DB)	Open interview in subject's own home with reference to collection.	Audio file	Opportunity, outside researchers social group, male of this age not covered, female of this age not covered, Irish heritage
CB	30 something female, professional	Semi-open recorded telephone interview	Audio file	Selected for profession, and socially observed attitude to videogame play. Seeking to saturate process and identifications
BA	50 something male, semi-retired professional	Semi-open interview in subject's own home with reference to collection.	Audio file	Selected for combination of age and personally stated preferences for videogaming. Seeking to saturate process and

Designation	Subject description	Survey notes	Data analysed	Sampling notes
				identifications
HA, HB, and OB	20 something males, postgraduate students, friends and housemates	Semi-open interview conducted together in cafe	Audio file	Selected for self stated 'hardcore' gamer status. Seeking to saturate process and identifications
AA	20 something male, postgraduate	Short, targeted interview	Field notes	Opportunity. Saturating identifications. Some saturation of process.
MB	Late teens or early 20s male, student	Short, targeted interview	Field notes	Opportunity. Saturating identifications. Some saturation of process.
NB	Late teens or early 20s female, student	Short, targeted interview	Field notes	Opportunity. Saturating identifications. Some saturation of process.
IA	Late teens or early 20s male, student	Short, targeted interview	Field notes	Opportunity. Saturating identifications. Some saturation of process.
DC	30 something female.	Short, targeted interview	Field notes	Selected for stated total rejection of videogaming. Saturating identifications.
AB	30 something, male, postgraduate student	Short, targeted interview	Field notes	Opportunity. Saturating identifications. Some saturation of process.

Designation	Subject description	Survey notes	Data analysed	Sampling notes
AC	20 something, male, postgraduate student	Short, targeted interview	Field notes	Opportunity. Saturating identifications. Some saturation of process.
MC	20 something, male, postgraduate student	Short, targeted interview	Field notes	Opportunity. Saturating identifications. Some saturation of process.
PA	30 something, female, postgraduate student, mother	Short, targeted interview	Field notes	Opportunity. Saturating identifications. Some saturation of process.
JC	20 something, female, creative industries	Informal conversations	None	Opportunity (close friend of researcher). Provided further clear examples to memos during sorting
HC	30 something, female, professional, mother	Single informal conversation	None	Close relative of researcher. Provided illustrative example for write-up.
JD	Primary school age male	Informal observations	None	Close relative of researcher, used to provide small illustrative examples in memos and writeup

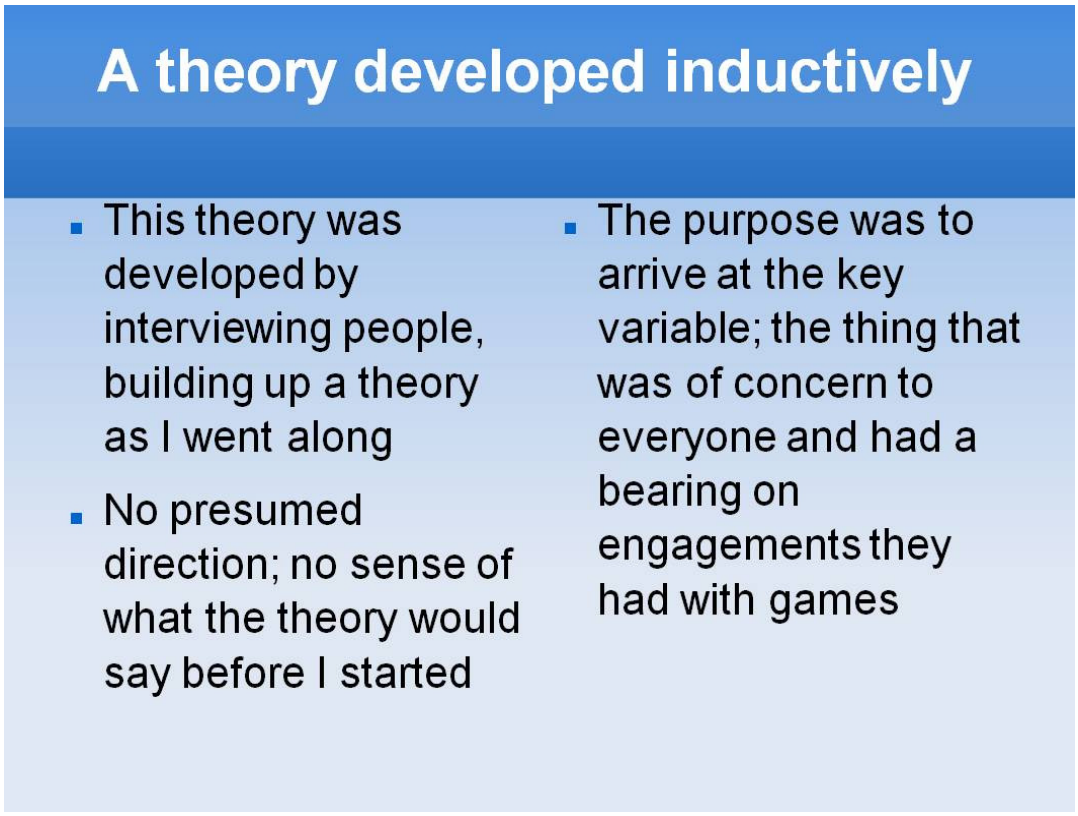
Appendix B: Survey presentation

Slide 1



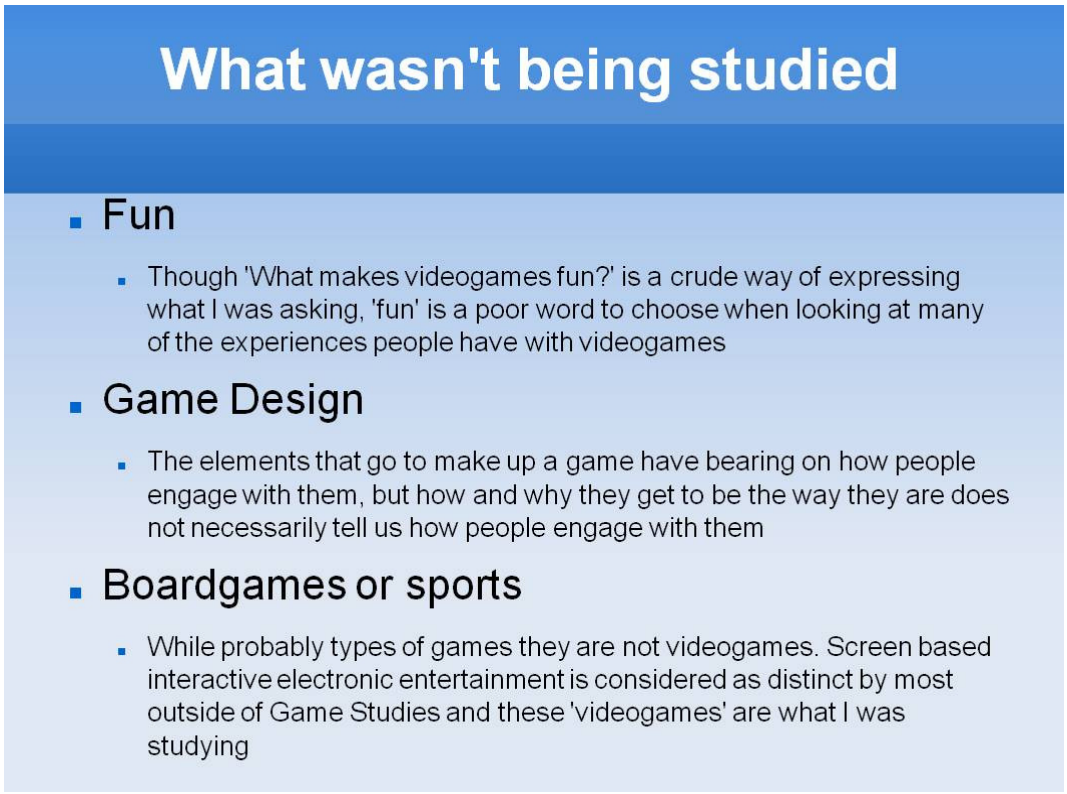
These notes are intended to provide another method of explanation, hopefully helping the reader to understand just what it is I'm getting at.
Other than the enclosed questionare further feedback should be directed to me at
john_h_salisbury@hotmail.com
Thanks for taking the time to review my work.
John Salisbury

Slide 2



If you are interested in the precise methodology I used check the Wikipedia pages for Grounded Theory Methodology as it was Barney Glaser's version of this system of theory generation that I was trying to follow.

Slide 3



Stating what I was not studying might seem unusual for a grounded theory, but selecting the domain is important.

While it is possible for players to have fun with a videogaming product 'fun' it is far too narrow a term to capture what players are using videogaming experiences for.

Another 'thing' I was not interested in, by virtue of using Grounded Theory, was the theories of others. I set out to develop a theory from data, not literature review.

Slide 4

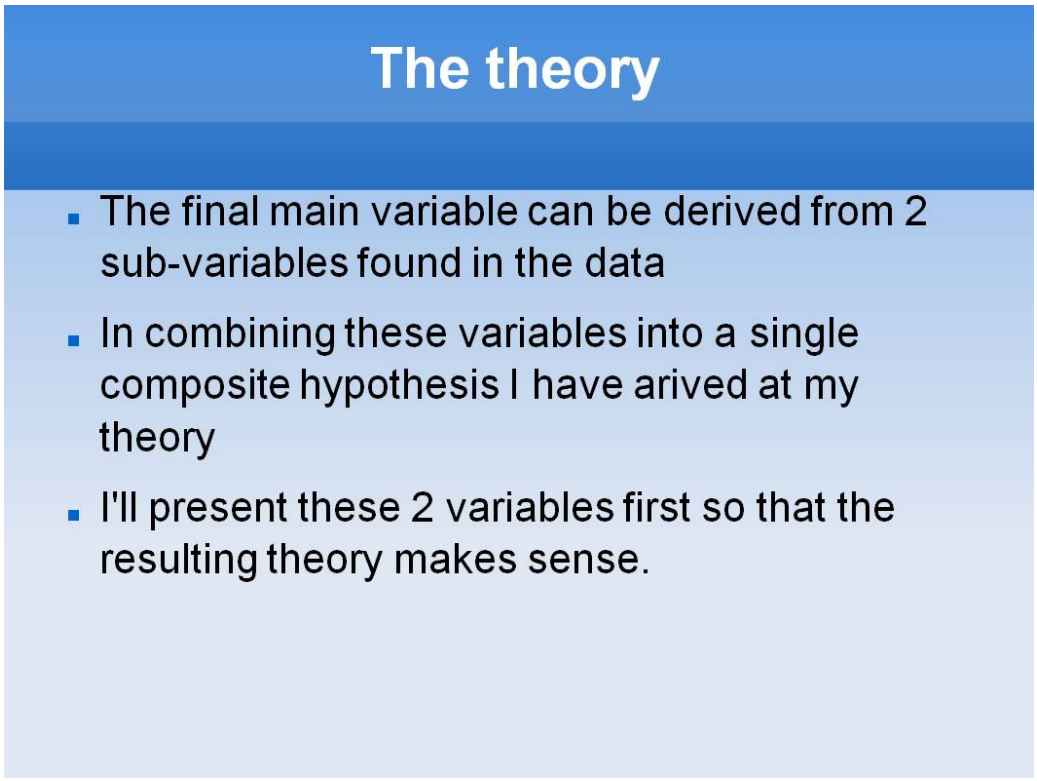
What I was interested in

- What is going on when someone engages with a videogame
- Any computer or video game play
- What people told me about their experiences and tastes
- What people own, report having owned or are considering obtaining
- General attitudes towards games in general, types of games or specific games

Pretty much anything that comes up when you raise videogames as the topic of conversation.

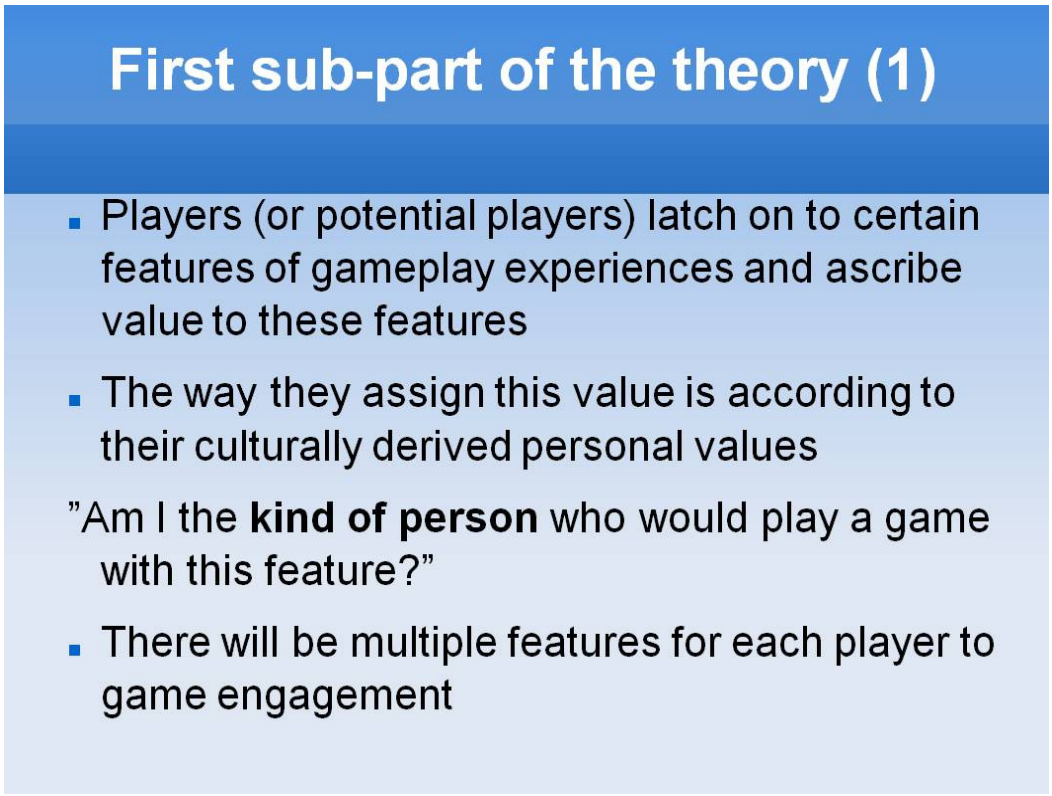
The games that people own and want to own are interesting in that they indicate a material investment in a game which might not be apparent by simply talking to that person, though we have to consider the degree of effort that was taken in obtaining the game amongst other factors.

Slide 5



These sub-variables or hypotheses are constructed of numerous sub-sub-hypotheses and so on. The main (in the jargon of the methodology 'core category') hypothesis is what is interesting and unique about this theory, and it was derived from 2 other hypotheses, so that's what I am presenting in this summary. I would be happy to explain the remainder in personal correspondance (and will be aiming to publish a more detailed explication at some future date).

Slide 6



A few terms might need a bit of explanation here:

Cultural = "Culture or civilization, taken in its wide ethnographic sense, is that complex whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society." Edward Burnett Tylor, 1874

Tylor's definition suggests that culture is a concept which is intrinsic to individuals, but many others might not hold this understanding hence my stressing 'personal values'.

I should point out that my training is in Cognitive Science not Sociology.

Slide 7

First sub-part of the theory (2)

- The aggregate or sum of the implicit values assigned to these features will determine the players engagement at any point in time
- So we can say that a player has a sense of net cultural worth or a sense of overall cultural value

Slide 8

Second sub-part of the theory

- A player will be forming impressions of a videogame product before they have experience of playing it
- Player will continue to relate their experiences and share in the described experiences of others after they have played a videogame product
- A player will implicitly reason about the value of an experence as they play

Slide 9

Second sub-part of the theory (2)

- A player will move through cycles of selecting, playing and reflecting
- Different features of the experience will be evaluated at different stages of the experience
- We could say that a player is negotiating these features as they engage with an experience over these loose phases
- So their engagement is progressively negotiated

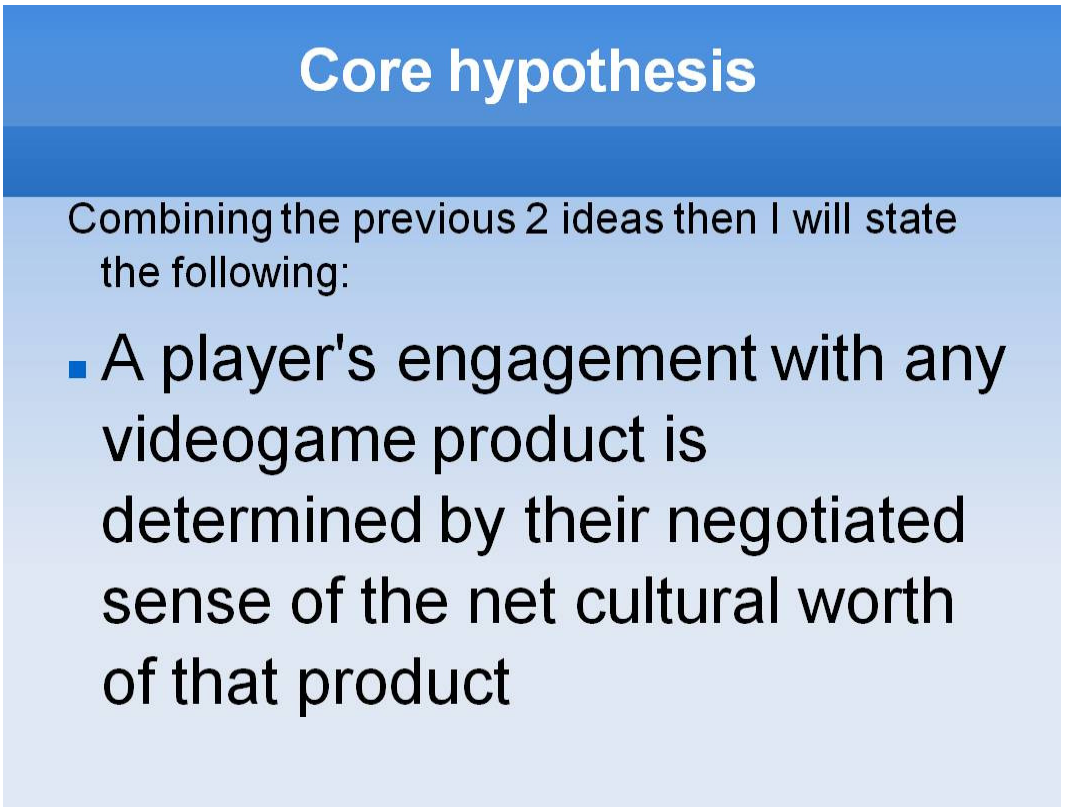
Slide 10

Summary of the 2 sub-theories:

So we have the following components:

- A player's engagement with a game is determined by their sense of net cultural worth at any point in their interaction with the game.
- A players engagement is progressively negotiated through cycles of interaction.

Slide 11


Core hypothesis
Combining the previous 2 ideas then I will state the following:
A player's engagement with any videogame product is determined by their negotiated sense of the net cultural worth of that product

Appendix C: Survey questions

These are the details of the survey questions which accompanied the presentation provided in Appendix B.

Introduction:

Please view the enclosed presentation before completing this form

Please fill in the following fields honestly and be critical where necessary. I am seeking both positive and negative feedback on my work as part of the process of conducting my research project.

I'm sorry if some of these questions seem a little hefty, but I'm limited to 10 questions per survey using a free account here on SurveyMonkey. Please feel free to be as brief or verbose as you feel is appropriate.

Question 1:

Your details will be used in strictest confidence. Your email will only be used to inform you of progress. If you wish to

remain anonymous please don't feel obliged to provide either your name or your email address.

Name:

Email Address:

Question 2:

How would you describe your association with videogames (e.g. designer, programmer, researcher, player etc.)?:

Question 3:

Do you think that the main hypothesis presented explains much of peoples' engagements with videogames? Why do you think this?:

Question 4:

If you were to explain the hypotheses spelled out in the presentation to another, would you feel able to do so clearly? How might you paraphrase these statements for a general audience?

Question 5:

Do you think that the theory as presented might help you understand the needs of videogame players? Is there anything which you feel is particularly positive or negative in the capacity of the theory in promoting this understanding?

Question 6:

Do you feel that the theory as presented may have the capacity to help you in your work or research? How is the theory strong or weak in terms of this ability to help?

Thanks:

Thank you for taking the time to consider my work. If you have entered your email address I will be thanking you in person in due course.